



IAF President's Welcome

Dear colleagues,

I am very pleased to welcoming you to your June 2022 IAF Newsletter.

This issue will focus on the successful IAF Global Conference on Space for Emerging Countries which took place in Quito, Ecuador on 16-20 May 2022. We are particularly pleased with the success of this gathering which attracted huge interest from throughout the Latin American region and the world space community.

This issue will also highlight the most important event of the space world: the 73rd International Astronautical Congress to take place in Paris, France on 18-22 September 2022. As the congress is getting closer, the IAF Secretariat and community are actively engaged in making this particular IAC as memorable as it promises to be. An intense programme is being put together featuring very special guests.

We are also delighted to have received 6 full proposals for hosting IAC 2025 coming from Bangkok, Thailand by Geo-Informatics and Space Technology Development Agency (GISTDA); from Beijing, China by Chinese Society of Astronautics (CSA); from Istanbul, Turkey by Turkish Space Agency (TUA); from Riyadh, Saudi Arabia by Saudi Space Commission; and from Sydney, Australia by Space Industry Association of Australia.

I would like to express my special appreciation to our IAF Members for their presence and contribution to this newsletter. Many thanks to all for your contributions and I hope you enjoy reading it.

With my best personal regards,

Warmest Regards,

Pascale EHRENFREUND
IAF President



IN THIS ISSUE

IAF PRESIDENT'S WELCOME

IAF EVENTS & NEWS

- GLEC 2022
- IAC 2022
- UN/IAF WORKSHOP
- IAF CONGRESS TV
- AWARDS ANNOUNCEMENT
 - Distinguished Service Award (DSA)
 - Luigi G. Napolitano Award
- Young Space Leaders (YSL)
- Emerging Space Leaders (ESL)
- IAF Spring Meetings 2023
- GLOC 2023
- IAC 2023

IAF MEMBERS' CORNER

INTERVIEW WITH:

- **Lionel Suchet:** *IAF Vice President for Technical Activities; Chief Operating Officer, Centre National d'Etudes Spatiales (CNES)*
- **PIERRE W. BOUSQUET:** *Deputy of the Associate Director for Exploration and Human Spaceflight, Centre National d'Etudes Spatiales (CNES)*

OUR LATEST PUBLICATIONS

- [GLEC 2022 Highlights](#)
- [MASTERCLASS ON SPACE LAW AND POLICY: PLENARY 3: SPACE LAW AND POLICY - REPORT](#)

IMPORTANT DATES:

- Deadline of Luigi G. Napolitano Award Call for Applications – **08 August 2022**
- Deadline of IAF Distinguished Service Award Call for Nominations – **15 August 2022**
- IAC 2022: **18 – 22 September 2022**
- GLOC 2023: **23 – 25 May 2023**
- IAC 2023: **2 – 6 October 2023**

Connecting @ll Space People





The second edition of the Global Conference on Space for Emerging Countries (GLEC 2022) was organized together with the Sideralis Foundation in Quito, Ecuador 16 - 20 May 2022. It was the second IAF Global Conference in South America and the first time that the IAF organized an event in Ecuador.

The conference successfully attracted 250 participants from 43 different countries, many participants travelled very far to participate in this unique event. The inclusion of emerging nations in the global space arena deserves, today more than ever, all our efforts and attention. The GLEC 2022 programme was designed to bring together the international community, including senior representatives of the major space agencies, industry, governments, policy makers, academia and NGOs.

The conference provided an environment to foster and support the international relations that allow space faring nations and space developing nations to share practices and data about space activities and their concrete social benefits. It was a wonderful week in Quito filled with interesting discussions during the many plenary and GNF sessions, networking opportunities and social events. An inspiring outreach event was organized together with the Club for the Future where Ecuadorian children sent postcards to space and an unforgettable gala dinner that was organized in the magnificent church of San Francisco.

I am sure that the GLEC 2022 legacy remains in Ecuador and will advance the space sector the region.

We will be continuing our Global Conference journey next year, when we head to Oslo, Norway for the Global Space Conference on Climate Change, GLOC 2023. This conference is hosted by the Norwegian Space Agency (NOSA) from 23-25 May. The conference will focus on a better understanding of climate change through the use of space-based services and applications.

Enjoy this booklet capturing the main highlights of GLEC 2022 in Quito and we are already looking forward to inviting you to Oslo

for the next Global Conference!
We will be continuing our Global Conference journey next year, when we head to Oslo, Norway for the [Global Space Conference on Climate Change, GLOC 2023](#). This conference is hosted by the Norwegian Space Agency (NOSA) from 23-25 May. The conference will focus on a better understanding of climate change through the use of space-based services and applications.

[Enjoy this booklet capturing the main highlights of GLEC 2022](#) in Quito and we are already looking forward to inviting you to Oslo for the next Global Conference!

Pascale EHRENFREUND
President of the International Astronautical Federation



[Read here all GLEC 2022 PRESS RELEASES](#)

[Whatch the GLEC 2022 HIGHLIGHT VIDEO](#)



[WATCH ALL PHOTOS FROM MONDAY 16 MAY 2022](#)



[WATCH ALL PHOTOS FROM TUESDAY 17 MAY 2022](#)



[WATCH ALL PHOTOS FROM WEDNESDAY 18 MAY 2022](#)



[WATCH ALL PHOTOS FROM THURSDAY 19 MAY 2022](#)

[WATCH HERE THE VIDEOS OF EACH SESSION!](#)

[MASTERCLASS ON SPACE LAW AND POLICY and PLENARY 3: SPACE LAW AND POLICY REPORT](#)



IAC 2022

The International Programme Committee (IPC) of the 73rd International Astronautical Congress, the IAC 2022, is pleased to announce:

THE IAC 2022 PLENARY PROGRAMME

Sunday 18 September 2022

- 13:45 - 15:15 **Heads of Agencies Plenary**
- 18:15 - 19:15 **Host Plenary - Space4all: Space For All The Inhabitants Of Planet Earth**

Monday 19 September 2022

- 09:00 - 10:00 **Plenary - The Value Of Low Earth Orbit In The Next Decade**
- 13:45 - 14:45 **Plenary - AI4Space: Perspective From The Next Generation**
- 17:45 - 18:45 **Highlight Lecture - Extreme Exploration: Parker Solar Probe and Solar Orbiter Trailblazing Around The Sun**

Tuesday 20 September 2022

- 09:00 - 10:00 **Plenary - New Horizons For Earth Observation: Adapting Our Societies To The Impacts Of Climate Change**
- 13:45 - 14:45 **Plenary - Defending Earth: The International Effort to Protect Us from Asteroids and Comets**
- 17:45 - 18:45 **Highlight Lecture - Sea Level Rise, A Crucial Indicator Of Global Warming: 30 Years of Space Borne Measurements**

Wednesday 21 September 2022

- 09:00 - 10:00 **Plenary - The Journey of the James Webb Space Telescope: The Story Of An International Collaboration**
- 17:45 - 18:45 **IAF World Space Award Highlight Lecture**

And THE IAC 2022 TECHNICAL PROGRAMME

The International Programme Committee (IPC) handled an unprecedented number of abstracts for IAC 2022 with more than 4800 submissions from 97 countries. We are delighted to report that the IPC has assessed all the abstracts during the IAF Spring Meetings and has put together a rich, high-quality and varied Technical Programme that highlights the diversity of the space field.

The programme includes **2064 Oral Presentations and 778 Interactive Presentations**, and will feature new symposia such as **Space Habitats, Space Traffic Management, Planetary Defense and NEO, Space Security, Stability and Sustainability, and many more.**

The IPC Steering Group has also selected **18 Special Sessions with innovative formats and multidisciplinary topics out of a record number of 100 proposals.** <https://www.iafastro.org/events/iac/iac-2022/technical-programme/special-sessions.html>

Find here <https://iafastro.directory/iac/browse/IAC-22/> all abstracts to be presented at the IAC 2022



THE IAC 2022 LATE-BREAKING ABSTRACTS ARE NOW AVAILABLE ONLINE!

The IAC 2022 Late-Breaking Abstracts (LBA) Session will be a celebration of discovery and late-breaking research, check the 51 LBA that will be presented during the congress!

<https://iafastro.directory/iac/browse/IAC-22/LBA/>

Late-Breaking Abstracts are composed of results that were not yet known, or fully available, on the previous abstract submission deadline. Thank you to everyone who submitted Late Breaking Abstracts. Reviews are completed and notifications have been sent out this week.

LBA are considered for interactive presentations only. If you have any questions, please contact ipsupport@iafastro.org

The IAC 2022 will feature an outstanding Technical Programme bringing together the global space community including scientists, engineers, industry leaders, representatives of space agencies, post-doctoral fellows, graduate students, academicians, lawyers, policy-makers and entrepreneurs engaged in all fields of space.

The preliminary Technical Programme offers an unrivaled speaker line-up participating in Technical Sessions, Interactive Presentations Sessions or Special Sessions. Detailed information can be found here:

<https://iafastro.directory/iac/browse/IAC-22/>
<https://www.iafastro.org/events/iac/iac-2022/technical-programme/special-sessions.html>

We look forward to seeing you in Paris!

UN/IAF WORKSHOP



United Nations Office for Outer Space Activities (UNOOSA) and the International Astronautical Federation (IAF) co-organize the 29th Workshop on Space Technology for Socio-Economic Benefits, in conjunction with the 73rd International Astronautical Congress (IAC).

This year's theme is "Access to Space for All: Bridging the Space Divide" to bring together policy- and decision-makers, and the research and academic communities to discuss on how space science, technologies and applications can support of sustainable economic, social and environmental development and the development of science, technology and innovation (STI) policies related to space.

This event will be held in Paris physically and will not be accessible online. Limited funding to sponsor participants is available, sponsored participants will be granted a waiver to attend IAC.

DETAILS

Place: Paris, France
 Date: 16-17 September 2022
 Website: <https://www.unoosa.org/oosa/en/ourwork/psa/schedule/2022/un-iaf-workshop.html>
 Deadline: Open for applications until 30 June 2022, register from <https://forms.office.com/r/sEtQTRa6Pv>



THE IAF CONGRESS TV IS BACK!

The International Astronautical Federation has again partnered with international broadcasting house, WebsEdge, to produce IAF Congress TV, the official broadcast at the 2022 IAF Congress. The International Astronautical Congress is the world's premier space event and a one-of-a-kind assemblage where major players, leaders, and decision-makers in the space community come together from over 110 countries across the globe.

Join us at the 73rd International Astronautical Congress in Paris, 18-22 September. This year's Congress will be focusing on Space for All and as such, we are keen to highlight thought leaders who are driving advancements to expand humankind's reaches to the moon and beyond. The highlight of the broadcast is the Thought Leadership Film Series. This is an exclusive number of pre-recorded films profiling partners at the forefront of the global space community. The venture serves to raise the international visibility of those that are revolutionizing the future of space exploration and striving toward the advancement and the betterment of humankind.

If you would like to see those featured since 2017 and gain a better understanding of the style and structure of the thought leadership segments, please see the links below:

- [Lockheed Martin Corporation - Artemis](#)
- [OQ Technology - Connecting the Unconnected](#)

If you require any further information about the broadcast, please feel free to contact Silvia Antolino: silvia.antolino@iafastro.org.



IAF DISTINGUISHED SERVICE AWARD CALL FOR NOMINATIONS 2023

Dear IAF Community,

The International Astronautical Federation (IAF) is pleased to announce the Call for Nominations for the 2023 "IAF Distinguished Service Award" that recognizes distinguished service by volunteers and/or staff to the activities of the Federation.

The Call for Nominations for the IAF Distinguished Service Award is addressed to IAF Technical or Administrative Committees' members, Delegates/members of IAF member organizations in good standing, IAF Bureau members and IAF Secretariat.

Nominations should contain:

- A citation (one sentence)
- A biography of the nominee including, i.e., the person's profile, career achievements and history, education, list of publications, etc.
- letter of support clearly addressing contributions of the nominee to IAF

Selection criteria:

- Duration of nominee's service
- Leadership in nominee's service
- Excellence of nominee's service

As a guideline, those recognized for distinguished service should normally meet several of the following criteria:

- More than 10 years volunteering for the IAF or longer
- A leadership role in a Technical or Administrative Committee or Sub-Committee, or served on the Bureau
- Attended the IAC and Spring Meetings on a regular basis
- Activities that required significant volunteering hours

The IAF Distinguished Service Award Sub-Committee will review the nominations received for the IAF Distinguished Service Award and will make recommendations to the IAF Honours and Awards Committee (HAC). The HAC will review the recommendations and make final recommendations to the IAF Bureau at the IAC 2022 I Paris.

The IAF Distinguished Service Award comprises a distinctive pin and certificate presented at the IPC General Meeting during the IAF Spring Meetings 2023 in Paris. The recipient's registration fee for the International Astronautical Congress (IAC) will be reduced to 50% of the applicable fee for the year of induction (IAC 2023 in Paris, France).

Nomination documents must be received by IAF Secretariat no later than 23:59 CET (Paris time) on the **Monday 15 of August 2022**, preferably by email at award@iafastro.org (Subject line: NOMINEE'S LAST NAME Nominee's First Name-IAF Distinguished Service Award 2023).

For more info, visit:

<https://www.iafastro.org/activities/honours-and-awards/iaf-distinguished-service-award.html>





THE 2022 LUIGI G. NAPOLITANO AWARD CALL FOR APPLICATIONS IS NOW OPEN!

The International Astronautical Federation is pleased to announce the opening of the Call for Applications for the 2022 Luigi G. Napolitano Award. The Luigi G. Napolitano Award is assigned every year to one (1) young scientist who has significantly contributed to the advancement of the Aerospace Science.

All the Authors who qualify (see Criteria below) and who wish to apply for the Award should send the selection material (see below) by e-mail before **Monday 08 August 2022** to the IAF Secretariat to award@iafastro.org.

The applications will be forwarded to Space Education and Outreach Committee, Honors and Awards Subcommittee. The Award consists of the Luigi G. Napolitano commemorative medal and a certificate of citation. It will be given at the International Astronautical Congress.

Criteria

The Napolitano Award is presented annually to a young scientist (below 30 years of age) who contributed significantly to the advancement of the Aerospace Science and gives a paper at the International Astronautical Congress on such a contribution.

Nomination and Selection

The Napolitano Award will be announced each year by the IAF Space Education and Outreach Committee. Anybody wishing to apply should send the following information to the IAF Secretariat before the published deadline:

- Full text of the paper to be presented at the IAC 2022
- Curriculum vitae (*including date of birth*)
- The applicant contribution should be clearly identified if the paper is co-authored as the paper must represent the applicant's work and not just part of a group effort.

Napolitano Award

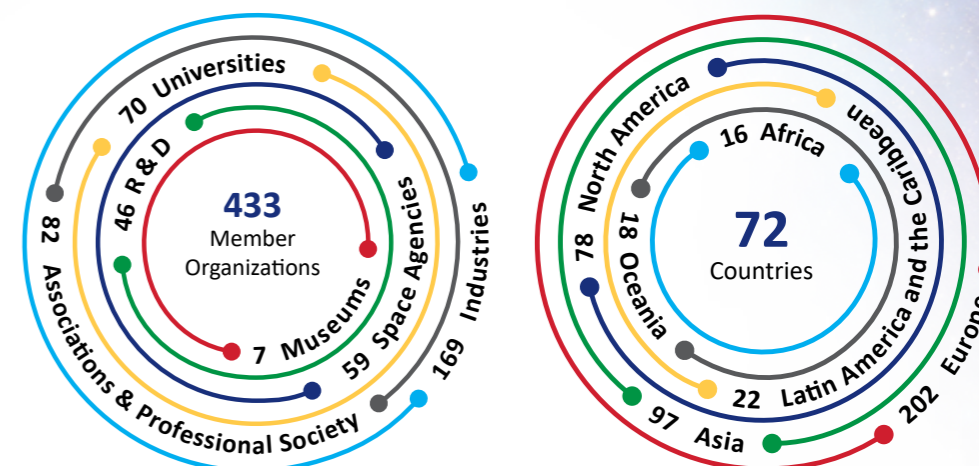
The Napolitano Award winner will be announced during the IAC 2022 Closing Ceremony. Therefore, all the participants have to be prepared to attend this event, in case they are selected as winner. Should you have any questions please contact us at award@iafastro.org.

For more info, visit: <https://www.iafastro.org/assets/files/activities/napolitano-medal/luigi-g-napolitano-award-call-for-applications-2022.pdf>



INTERNATIONAL ASTRONAUTICAL FEDERATION

Join the world leading space advocacy body!



OUR BENEFITS

| | | | | |
|--------------------|---|---|---|---------------------------|
| NETWORKING | } | <ul style="list-style-type: none"> Access a global network of potential business partners and meet decision makers Promote your organization to the workforce of tomorrow Attract and exchange with students and young professionals at our targeted events Interact with your peers in exclusive IAF members lounges Shape the space community by nominating an IAF Bureau Member | } | VISIBILITY |
| | | <ul style="list-style-type: none"> Promote your organization on the IAF website, social media and the IAFastro app Reach more than 35.000 subscribers worldwide through the IAF Newsletter and Members' Corner Gain visibility for your organization through the IAF publications Be included in all IAF promotional materials | | |
| RECOGNITION | } | <ul style="list-style-type: none"> Earn public recognition of your organization's achievements Nominate candidates and be nominated for the IAF Awards Access IAF events through IAF Grants Programmes Get privileged connection with IAF's media partners Boost your organization's awareness through IAF Plenary Programmes | } | FINANCIAL BENEFITS |
| | | <ul style="list-style-type: none"> Get discounted rates on registration and exhibition fees Receive free access to more than 50.000 manuscripts through the IAF Digital Library Book complimentary meeting facilities during IAF events Have privileged access to sponsorship opportunities at IAF events | | |

JOIN US

Download the **Application Form** on our website www.iafastro.org and contact Martina.Fabbiani@iafastro.org

Get in Touch via the IAFASTRO App and be part of the conversation **@iafastro!**

You can download the App on:

- **Google Play store:** <https://play.google.com/store/apps/details?id=com.attendify.confbofn3r>
- **Apple Store:** <https://itunes.apple.com/app/id1328269635>
- **IAF Web App:** <http://bofn3r.m.attendify.com/app/events> Or directly with this QR code:



Connecting @ll Space People



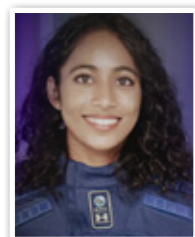
WE ARE PLEASED TO ANNOUNCE THE 2022 IAF YOUNG SPACE LEADERS

The IAF is proud to present the 2022 IAF Young Space Leaders!

The IAF Young Space Leaders Recognition Programme is awarded to exceptional students and young professionals, who contribute to astronautics in their academic or early careers, reach out to other young people and their communities to share knowledge and experiences, have been engaged with the international space community and contribute to IAF activities.

The 2022 IAF Young Space Leaders were chosen by a selection committee during the IAF Spring Meetings in March. They will be presented with their award during the Closing Ceremony of the 73rd International Astronautical Congress (IAC) - IAC 2022 - in Paris, France which will take place from 18 - 22 September 2022. Awardees also attend the IAC Gala Dinner as guests of the IAF President and enjoy a free IAC registration.

CONGRATULATIONS TO ALL!



Sirisha BANDLA

Vice President,
Government Affairs and Research
Operations,
Virgin Galactic



Antonino SALMERI

Doctoral Researcher in Space Law
University of Luxembourg



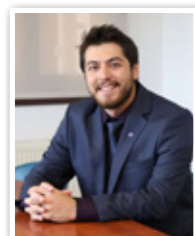
Dunay BADIRKHANOV

Vice chairman of Azercosmos,
Space Agency of the Republic of
Azerbaijan



Ruvimbo SAMANGA

Space Law and Policy Analyst



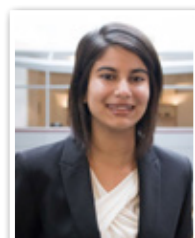
Ozan KARA

Senior Propulsion Engineer,
DeltaV Space Technologies Inc.



Maruška STRAH

Executive Director,
World Space Week Association



Mariam NASEEM

Member of the Industry Relations team
Canadian Space Agency



Anthony YUEN

Chair,
Space Generation Advisory Council
(SGAC)



THE IAF IS PROUD TO INTRODUCE THE 2022 IAF EMERGING SPACE LEADERS!

We are very pleased to introduce the 30 brilliant students and young professionals chosen by the IAF Emerging Space Leaders Sub-Committee to receive a grant and participate in the International Astronautical Congress - IAC 2022. The IAC 2022 will take place in Paris, France from 18 - 22 September 2022. The 2022 IAF ESL grant recipients will have the opportunity to extend their network, gain knowledge and meet space experts.

Special thanks to Blue Origin for contributing to significantly increase the number of grants thanks to their generous donation!



Adewale ADELANWA



Lama ALEREEMAN



Tensae ALI



Suraj ARANHA



Fahimeh BARZAMINI



Thomas CERNEV



Joshua CRITCHLEY-MARROWS



Maria Fernanda DEL BARCO LEON



Martina DIMOSKA



Nisanur EKER



Adolfo JARA



Abdullah Hil KAFI



Malkia KELELUE



KangSan KIM (Antonio Stark)



Catherine MANDIGMA



Juan Carlos MARISCAL GOMEZ



Joice MATHEW



Mahhad NAYYER



Bildad Chege NJENGA



Ramson NYAMUKONDIWA



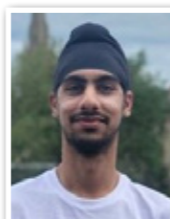
Didunoluwa OBILANADE



Peter OKELLO



Sara SABRY



Nathanan SACHDEV



Niki SAJJAD



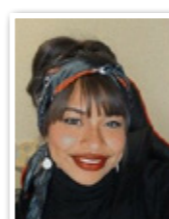
Elizaveta SHASHKOVA



Janardhan SILWAL



Alina VIZIREANU



Roxy WILLIAMS



Ruida XIE

The IAF Spring Meetings gather every year in March the IAF community in Paris. For three days IAF Administrative and Technical Committees meet and the International Programme Committee selects the abstracts to be presented during the year's IAC.



The next IAF SPRING MEETINGS 2023 will be held from

28 – 30 March 2023 Paris, France



GLOC 2023

Following its mission to promote international development and share knowledge, the **International Astronautical Federation (IAF)** and its member the Norwegian Space Agency (NOSA) are pleased to announce that the **2023 Global Space Conference on Climate Change (GLOC 2023)** will be taking place in **Oslo, Norway on 23 – 25 May 2023**. GLOC 2023 will contribute to the global efforts to better understand and battle climate change through the use of space-based services and applications. First conference of its kind, GLOC 2023 is designed to encouraging the sharing of programmatic, technical and policy information, as well as collaborative solutions, challenges, lessons learnt, and paths forward among all nations. GLOC 2023 will address various topics of interest in relation to space and climate change with a specific focus on:

- Causes and Effects of Climate Change
- Possible Solutions
- Space Remote Sensing / Satellite Monitoring / Earth Observation
- Maritime Surveillance
- Intergovernmental and Interagency Actions
- Climate Change and our daily lives

The conference programme is designed to bring together the international community, including senior representatives of the major space agencies, industries, governments, policy makers, academia and NGOs, as well as representatives of non-space sectors involved in the climate change debate. These leaders in the field will converge in Oslo, Norway to present results, exchange ideas, debate roadmaps, and discuss the future opportunities provided by space activities to contribute to the global climate change mitigation efforts.



IAC 2023

The **74th International Astronautical Congress** is to take place in **Baku, Azerbaijan between 2nd and 6th October 2023**.

It is an honour for the International Astronautical Federation to invite the greatest world specialists in the field of space who will have an opportunity to debate throughout the Congress on the general theme **“Global Challenges and Opportunities: Give a Chance to Space”**.

There is a rich history behind holding the IAC in Azerbaijan. The 24th International Astronautical Congress was held in Baku in 1973 for the first time in the Soviet Union upon the initiative of Azerbaijan’s National Leader Heydar Aliyev.

This international meeting aims to gather researchers and professionals to discuss about space science and exploration, space applications and operations, space technology, space infrastructure, space and society, and much more.

The IAF has a great pleasure to invite you to propose one or more papers (oral or interactive) on any of the categories scheduled for the different symposia of the Congress in accordance with the instructions in the IAC 2023 Call for Papers to be distributed during the upcoming IAC 2022 in Paris in September.



NEWS!



On April 12th 2022, IAC Milano 2024 presentation to Lombardy local Institutions was held in Milan, at Palazzo Castiglioni. Organized by AIDAA, it hosted prestigious guests from the Italian and European aerospace sector, including IAC Secretary, Lombardy Regional government sub secretary, Agenzia Spaziale Italiana, Leonardo, Politecnico di Milano, Università Bocconi, YesMilano, AIM Group International, MICO Milano Convention Centre, and Lombardia Aerospace Cluster.



AIDAA is pleased to announce the list of courses for 2022 in the framework of the institutional activities for members organized by the Educational Series and Academy technical committee. Courses will be online on Webex, and exact dates will be announced for each course via dedicated AIDAA web pages (<https://www.aidaa.it/courses/>) Twenty-three courses are scheduled to date, and a few more could be added. Special packages for organizations and individuals are available (<https://www.aidaa.it/package-list/>)



Finally, AIDAA is glad to share that the 10th edition of the Design, Modelling and Experiments of Advanced Structures and Systems Conference took place in Scopello from 1st to 4th May 2022. This edition was organized by AIDAA, the Universities of Enna and Palermo, and Politecnico of Torino. Some forty attendees presented research works concerning various themes of structural mechanics and materials and came from Italy, Portugal, Germany, France, Austria, Netherlands, and Russia. The proceedings can be found online (<https://doi.org/10.5281/zenodo.6472318>)



EOS Data Analytics Selected To Participate In AWS Space Accelerator For Startups

[EOS Data Analytics](#), a global provider of AI-powered satellite imagery analytics, announced it has been selected to participate in the [AWS Space Accelerator](#), a technical, business, and mentorship program for startups seeking to use Amazon Web Services (AWS) to help solve the biggest challenges in the space industry.

This opportunity will support EOS Data Analytics efforts to create satellite-powered precision agriculture solutions for informed crop growing decisions, in order to help users boost farm productivity and profitability. The company will use this opportunity to build on its commercial space expertise and help build a professional network with top industry leaders.

"We are pleased to participate in AWS Space Accelerator for startups, and we appreciate the opportunity to learn from highly experienced mentors and integrate new knowledge into our product development to build even more reliable, scalable,

and secure solutions for our customers. Having access to AWS resources and networks is a great fit for our goal of increasing EOS Data Analytics business coverage, while creating additional value for AWS customers," said **Rim Elijah, VP of Sales at EOS Data Analytics.**



EOS Data Analytics will use this opportunity to deep dive into specialized AWS services such as machine learning technologies to accelerate intelligent systems learning, training, and to build correct and extensible pipelines. EOS Data Analytics will consult with AWS experts on how various cloud-based storage tools could support its upcoming [EOS SAT](#) satellite constellation launch.



D-Orbit Launches its Sixth ION Satellite Carrier Mission

Infinite Blue launched on May 25, 2022, aboard the SpaceX Transporter-5 Mission

Fino Mornasco, Italy, May 25, 2022: [D-Orbit](#), the space logistics and orbital transportation company in the process of going public through a transaction with Breeze Holdings Acquisition Corp. (NASDAQ: BREZ), today **launched Infinite Blue** aboard SpaceX's Transporter-5 mission. Infinite Blue is the **sixth commercial mission** for D-Orbit's proprietary orbital transfer vehicle (OTV), **ION Satellite Carrier (ION).**



(Credits: SpaceX)

The Falcon 9 rocket lifted off today, May 25, 2022, at **14:35 EDT** from the **Space Launch Complex 40 (SLC-40)** at Cape Canaveral Space Force Station (CCSFS), Florida. ION, a versatile and cost-effective OTV designed both to precisely deploy satellites and perform technology demonstrations of third-party payloads in orbit, **was successfully deployed 1h 9m 22s after lift-off into a 525-kilometer Sun Synchronous Orbit (SSO).**

"We are thrilled to have successfully launched our sixth commercial ION mission," said **Renato Panesi, Ph.D., D-Orbit's Chief Commercial Officer.** *"We are continuing to ramp up our launch schedule and expand our client base while steadily progressing along our roadmap. I'm proud of our proven technology, our team, and the amazing milestones we are achieving together, mission after mission".*

With the launch successfully completed, D-Orbit's mission control team is executing the mission's **Launch and Early Orbit phase (LEOP)**, performing a series of health check procedures in preparation for the operational phase.

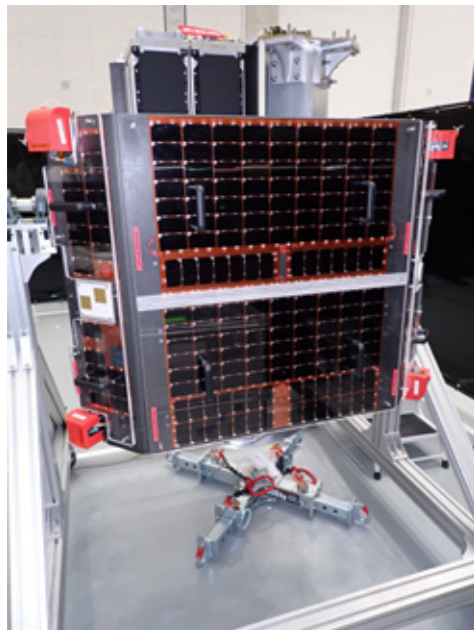
Partnering with Valued Customers

During the mission, ION SCV006 will deploy:

- **Guardian**, a 6U CubeSat developed by [Aistech](#) carrying a multispectral telescope equipped with visible (RGB), near infrared (NIR), and thermal infrared (TIR) sensors. The imaging payload is focused on **commercial services addressing markets linked to environmental sustainability**.
- **SBUDNIC**, a 3U CubeSat developed by [Brown University](#) in collaboration with the [Institute on Atmospheric Pollution of the National Research Council of Italy](#) (CNR-IIA). Through its fish-eye cameras, the spacecraft **will collect and transmit panoramic views of space to Earth** from the satellite to be promoted through social media, sponsorship campaigns, and school partnerships. Following an Open Architecture philosophy, the project's goal is **to inspire future engineers to advance space exploration in universities, research, and industry** and contribute to ongoing efforts proving the accessibility of space. After its mission is complete, SBUDNIC will deploy a drag sail to deorbit itself.

This mission will also include the in-orbit demonstration of two third-party hosted payloads:

- A prototype nanosatellite developed by [Cryptosat](#) for **secure cryptographic applications** such as electronic voting, trusted random beacon, and verifiable delay enforcement for smart contracts.
- **Gen-01** a new type of **space propulsion system** developed by [Genergo](#) to further push the boundaries of what is possible in space travel.



(Credits: SpaceX)

Infinite Blue is ION's sixth mission in less than two years and the third in 2022. **D-Orbit launched its first ION in September 2020** aboard an Arianespace VEGA launcher, then four further

missions aboard SpaceX Transporter missions. With this launch, the Company will have transported to space **more than 80 payloads** collectively.

The Company has three more ION launches scheduled for the remainder of 2022.



NSSA in recent times for IAF newsletter

The National Space Science Agency (NSSA) deployed Light 1 satellite, the first Bahraini Emirati joint satellite, on February 3, 2022 cementing Bahrain's entry into the space field. Currently, Light 1 is orbiting Earth and collecting Terrestrial Gamma-ray Flashes (TGFs). Light 1 is the first of its kind in the Middle East, and the data will be shared with universities and research centers worldwide. At present, NSSA is working on the second Bahraini satellite built in Bahrain by Bahraini engineers.



Figure 1: Launch of Light 1 onboard Falcon 9 SpaceX rocket.

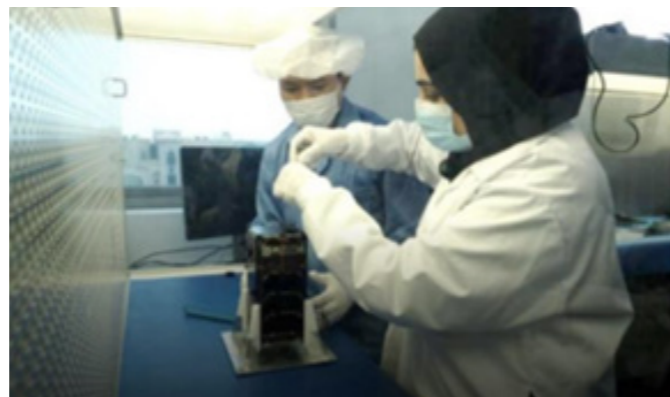


Figure 2: NSSA Engineer working on Light 1.

NASA has selected NSSA to be an agency partner in organizing the Space Apps, the largest global annual hackathon. As part of NSSA's mandate, 21 research papers have been published in the last 20 months. NSSA has signed the Artemis Accord led by NASA to expand space exploration as part of the international collaboration.



Figure 3: NSSA signs Artemis Accords to strengthen international space cooperation

NSSA has accomplished several projects contributing to the UN Sustainable Development Goals (SDGs) like monitoring palm trees and the green areas coverage all utilizing Artificial Intelligence (AI). NSSA attained third place in two international Space Hackathons in 2020 and attained first place in the Bahraini women's scientific hackathon in 2019. NSSA is playing a vital role in public awareness about space. In the last year, NSSA released more than 200 press releases, conducted 45 TV and social media interviews, and conducted 25 public awareness sessions.



Figure 4: NSSA's Space Images and Data Analysis team during their field survey of palm trees.



The European Space Agency's Business Incubation Centre Turin (ESA BIC Turin) supports innovative start-ups based on space technologies, with both upstream and downstream applications. Start-ups admitted to the incubation program will receive a financial contribution of 50,000 euros for product development and intellectual property management. In addition, the program will provide business coaching and mentoring services, technology and fundraising support, and access to ESA BIC Turin's extensive partner network, which includes large companies, investment funds, and research institutions.

ESA BIC Turin was born in 2021 and it is managed by I3P with technological support of Politecnico di Torino and LINKS Foundation. The centre is part of the European ESA BIC network.

In May 2022, ESA BIC Turin announced the first 8 start-ups admitted to the incubation program and launched the call for the next round of selection. Applications from space-related companies will be open until Sept. 9, 2022: more information is available at <https://www.esabic-turin.it/application-process> and can be obtained from contact@esabic-turin.it.





Azercosmos, the Space Agency of the Republic of Azerbaijan, continues expanding and strengthening international cooperation within the industry

Recognizing the establishment of strong collaborative relations with the global network of partners as a priority, Azercosmos, the Space Agency of the Republic of Azerbaijan, strives to enhance and sustain the cooperative ties with the international space industry members.

Just recently, Azercosmos signed a Protocol of Intent with GTD Ingenieria de Sistemas, a Spanish aerospace, defense and security company, embracing the implementation of joint projects in space analytics, development of satellite solutions and systems, and exchange of knowledge and expertise within educational programs. Azercosmos has also entered into an agreement with JSC "National Company "Kazakhstan Gharysh Sapary", defining the plans and activities on joint projects launch and mutual use of satellite resources.



Azercosmos maintains its active participation at various international exhibitions, conferences, and other events, ensuring positive representation, exposure, and interaction with customers and partners on the international arena. The organization was represented at the Global Conference on Space for Emerging Countries, contributing to riveting sessions on space ecosystem development and the evolution of the ecosystem through the prism of space agencies. A platform bringing together the global space industry representatives, the Conference provided the opportunity to invite the guests and participants to the IAC 2023 to be held in Baku as well.

Recently, the team also had a chance to share the vision of Azercosmos on geospatial solutions application and development at the Baltic Geospatial Information Technology Conference, and participated at CABSAT 2022, the largest event in the MEASA region convening the leading players in the satellite telecommunication business.

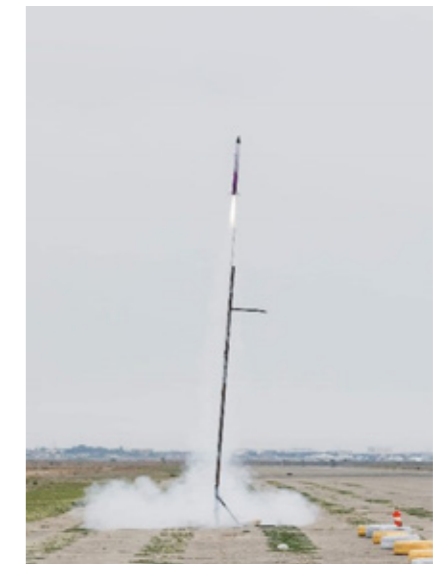


The Research and Development Centre of Azercosmos, the Space Agency of the Republic of Azerbaijan, focuses on driving technological advancement and introducing innovative solutions

Bringing together brilliant minds from a wide range of spheres, such as aerospace and robotics, software development, and artificial intelligence, the Research and Development Centre of Azercosmos, the Space Agency of the Republic of Azerbaijan,

constantly endeavours to drive technological advancement and bring meaningful innovations, contributing to space industry development.

Azercosmos puts an equal emphasis on both facilitating innovation from within the organization and fostering R&D-related activities among the general public. A great example of the latter would be the Teknofest Aerospace and Technology Festival held in May in Baku, where 2 competitions, namely "CANSAT Satellite Modeling" and "Unmanned Aerial Vehicles" were organized by Azercosmos. Within CANSAT competition, teams of bright and energetic students from various universities across Azerbaijan and Turkey employed the rockets provided by Azercosmos R&D Centre to launch their satellite models. With the impulse of 407 Ns each, the rockets made it possible to deliver the satellite models into the sky and send a telemetry signal to the ground station, determining the gas structure of the air, its temperature and other important indicators.



This is a significant milestone not only in the context of promoting R&D, but also nurturing talent and attracting the youth to shaping the future of the space industry.

As part of its global activities, Azercosmos also strengthens international cooperation in research and development, ensuring knowledge exchange and technology transfer. Joint projects and initiatives, investment attraction and educational programs in the field of R&D are some of the priorities for cooperation in the sphere.





Space in Africa

Space in Africa is 100% dedicated to analytics and consulting activities in the space sector, serving both the institutional and commercial markets with a particular focus on Africa. Our experience builds on a long track of past projects for international organisations, national governments, and commercial players, with high stakes in the space business. Our proprietary, research-based business and market analysis predict critical outcomes in what happens next in the industry and the opportunities available. We believe it is time for a commercial space ecosystem in Africa. Our data-driven analysis, free of vested interests and pre-conceptions, is helping to shape the ecosystem by making available accurate information critical for the change.

The NewSpace Africa Conference 2022 was a great success, and we are excited to share the details of the conference with you. — Access [report](#).



Scheduled projects:

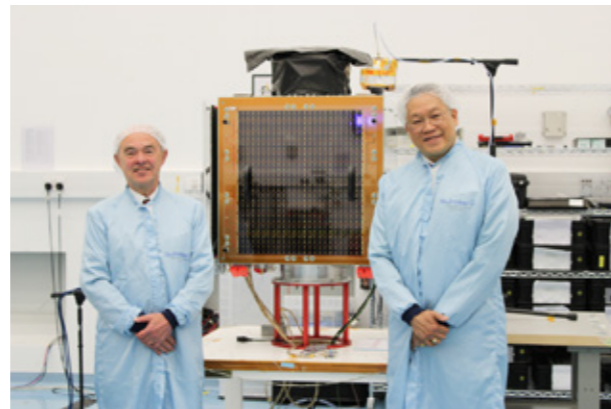
- **Space in Africa Portal:** This resource is a real-time portal that provides data to aid business intelligence and policy decisions in the African space and satellite industry value chain.
- **African Space Industry Report; 2022 Edition:** Set to be published in June 2022, this report analyses projects, policies, challenges and opportunities that nuance the **African space scene**.
- **NewSpace Africa Industry Report; 2022 Edition:** The African NewSpace industry has seen tremendous growth in the last decade, especially in the past year. With a global clientele and a presence in every market, this sub-industry is one to watch out for.
- **Global Space Budgets 2022:** This is an analysis of the space budgets of 106 governments. The analysis will record space investments based on country and continent to draw inferences on market fluctuations.

For more information, visit:
www.spacein africa.com
 IG/Twitter/Facebook: @spacein africa1
 LinkedIn: Space in Africa



SSTL Ships the THEOS-2 SmallSAT to GISTDA in Thailand

Surrey Satellite Technology Ltd (SSTL) has shipped the THEOS-2 SmallSAT, a 100kg Earth Observation satellite, to the Thai Geo-Informatics and Space Technology Development Agency (GISTDA) in Sri Racha, Thailand.



Manufactured in the UK under a 4 year customer training programme, the THEOS-2 SmallSAT is a one metre resolution class Earth Observation satellite with both still and video imaging



Satellogic Earns Industry-Leading Results from USGS Assessment

Satellogic, the first vertically integrated geospatial analytics company and a leader in sub-meter resolution Earth Observation (EO) data collection, shared its results from a recent technical assessment. In April 2022, the US Geological Survey Earth Resources Observation and Science Cal/Val Center of Excellence (USGS) published a report evaluation of prominent EO [data](#) providers, addressing the overall quality of Satellogic's NewSat multispectral sensor. The assessment examined geometric, radiometric, and spatial performance.

In brief, Satellogic received high performance results across the board. Curious to see how its performance fit within the industry, Satellogic published a [blog post](#) comparing individual USGS assessment results for Satellogic, Maxar, and Planet. The comparisons and commentary are provided by Satellogic. The US Geological Survey Earth Resources Observation and Science Cal/Val Center of Excellence does not issue endorsements.

Previously, the company received gold, silver, and bronze medal rankings from the US National Geospatial-Intelligence Agency (NGA) in its 2021 [Olympic themed evaluation](#) of international Earth observation capabilities.

While the USGS evaluation brought about excellent results for Satellogic, the company expects enhanced technological performance with its [Mark V satellite design](#). This next-gen spacecraft will increase capacity at a higher resolution, with leading geometry and radiometry accuracy. Satellogic designs, manufactures, and operates its own satellite constellation. It has a Pilot Plant in Montevideo, Uruguay, and just broke ground on a new [High Throughput Facility](#) near Rotterdam, Netherlands. At full operational capacity, the facilities combined can produce up to 124 satellites a year.

[Explore Satellogic high-resolution Earth Observation Data](#)



capability, an ADS-B aircraft identification payload, and a Thai customer developed experimental payload. The ADS-B payload is specific for the THEOS-2 SmallSAT and is based on the newly developed SSTL Software Defined Radio which is configurable in orbit, and which has been designed to complement SSTL's range of small satellite sensors.

The occasion was marked by a visit from the **Thai Ambassador to the UK His Excellency Mr. Pisanu Suvanajata**, who said *"I am honoured to be invited to witness the progress on THEOS-2 SmallSAT project before it is shipped to Thailand, and to learn more about the work that has been carried out by GISTDA to build the satellite in collaboration with SSTL here in the UK. This ongoing collaboration represents an advanced and strategic partnership between the two countries which will deliver significant benefits for socio and economic development, such as its applications in urban planning, change detection, infrastructure monitoring and humanitarian disaster monitoring for Thailand."*

Phil Brownnett, SSTL's Managing Director, said *"We are delighted to work with our customer GISTDA to extend the latest small satellite technologies to a new generation of engineers, cementing a successful relationship between SSTL and GISTDA. SSTL's training programmes are testimony to the international co-operation at the heart of the space sector, and we look forward to continuing to support our GISTDA colleagues with launch and in-orbit operational support."*

SSTL's training programme for GISTDA was devised to enable the Thai engineers to design, manufacture, integrate and test similar satellites in Thailand in the future and was built under a knowledge transfer training programme involving a total of 48 customer engineers from GISTDA, with the training and mentoring taking place both in the UK at SSTL's Guildford facility, and in Thailand. SSTL has also been working with GISTDA to develop and qualify their in-country space supply chain, a key element to advance in-country capacity building and achieve sustainable development of space activities in Thailand.

The THEOS-2 SmallSAT is based on SSTL's CARBONITE series of earth observation spacecraft and will be operated by GISTDA from Thailand with support for early operations from SSTL.

The THEOS-2 SmallSAT programme was delivered as part of the THEOS-2 Earth Observation Programme in collaboration with Airbus Defence and Space, who are delivering a very high resolution satellite and a comprehensive geo-intelligence system.

The THEOS-2 SmallSAT is SSTL's 20th Know-how Transfer customer training programme and the second collaboration with Thailand; SSTL previously trained Thai customer engineers during the 1995-1997 [Thai-Paht mission](#).



It all started at IAC HE Space celebrates 40-year jubilee

It all started at the IAC in Rome in 1981. After giving a presentation about the history of extravehicular activity (EVA) in US manned Spaceflight, Scott Millican was approached to share his knowledge and experience in Europe. Seizing this opportunity, Scott Millican and Mike Hernandez, both veterans of the early NASA Manned Space Missions from Gemini 10 through to Apollo 17, set up the foundations of HE Space as we know it today.



Scott Millican, Mike Hernandez and Earl Thompson
Plan Company Strategy, November 1982

After 40 years, HE Space is still flourishing and expanding into new markets. Recently HE Space has been awarded a multi-million Euro contract by ESA to deliver a new flagship climate coordination office. The office is hosted by ESA at its ECSAT site in Harwell, UK. HE Space was proud to witness our new Climate Office team being presented officially at the ESA Living Planet Symposium in May 2022 in Bonn, Germany.

What is the secret of the company's success? It is always people who bring success – whether it's related to a project, to development, in business, happiness or whatever else you might think about. That's why HE Space is passionate about people and passionate about space.

It is the current and former employees and their families, the business partners and friends, advisors, and companions HE Space would like to thank for their support. They are the heart of HE Space, keeping the company alive and growing!

Present with a stand at the IAC 2022 (K10) in Paris, HE Space continues the journey from where it all started and is looking forward to the next 40 years.



The American Astronautical Society (AAS) is the premier network of current and future space professionals dedicated to advancing all space activities. With many symposia, competitions, and technical meetings hosted throughout the year, AAS aims to be a source for the space industry to network, exchange information, discuss career aspirations, and expand space knowledge.



Highlighting some of the events that AAS hosts:

Robert H. Goddard Memorial Symposium: The annual Goddard Symposium took place in-person on March 23-25th, 2022 at the University of Maryland. With the theme, "Envisioning our Future in Space", topics included the Webb Space Telescope, visionary technology enabling science, the Artemis mission, and more. Learn more at astronautical.org/goddard.

Student CanSat Competition: Held annually, the Student CanSat competition is a small payload design-build-launch competition that empowers students from universities and colleges all over the world to exhibit their knowledge in space engineering. The 2022 CanSat competition was held on June 9-12th at Virginia Tech with strong international team participation. The 2022 winners hailed from the UK, Poland, and Indonesia with 1st place

being the team from Assumption College of Thailand. More information on the competition is available at astronautical.org/events/cansat.

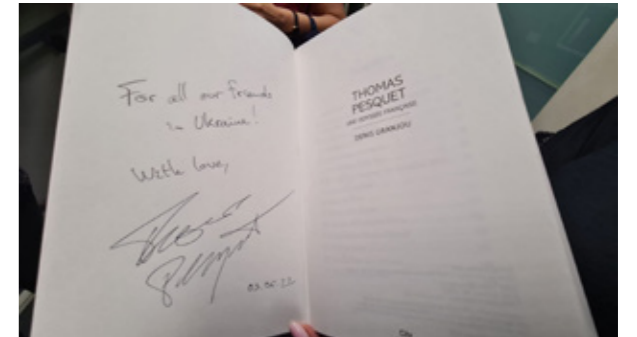
John Glenn Memorial Symposium: The 4th Annual John Glenn Memorial Symposium is returning in-person on July 18-20th, 2022 at Case Western Reserve University in Cleveland, Ohio. The theme is "An Electrifying Future: Earth and Space Sustainability" where anticipated sessions include Air Taxis, Mobility, and Traffic Management, LEO's Getting Crowded, the Future of ISAM, and more! Further details at astronautical.org/glenn.

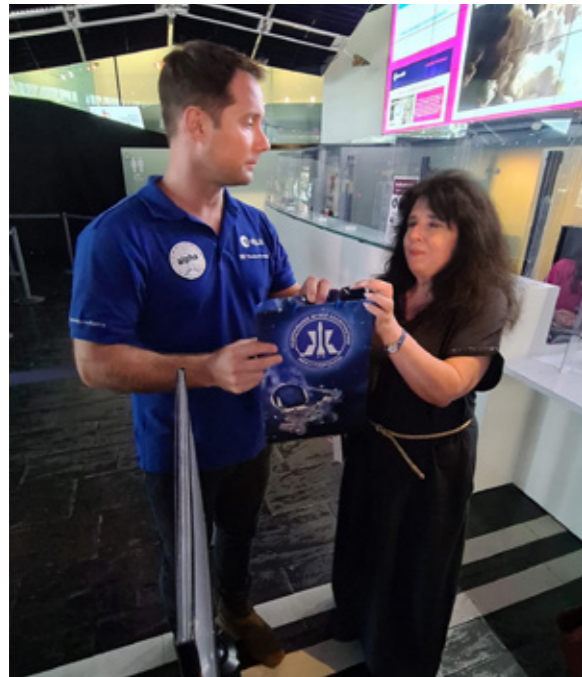


Museum facing the challenge of war

In such a difficult wartime period, the Sergiy Korolyov National Space Museum in Ukraine was not left without international support. The Cite de L'espace supported us in organizing an exhibition "UKRAINE PER ASPERA AD ASTRA" about Ukrainian astronautics and also facilitated a meeting between the museum's director, Iryna Dyachuk, and astronaut Thomas Peske, who donated his autographed book to the museum. The Ethnocosmological Museum of Lithuania, which organized humanitarian aid to the museum during the first days of the war, also gave great support.

Even in such a difficult time the museum staff continues its work: organizing outreach space classes for displaced children who left their hometowns because of the war. We try to support kids, entertain them and give them a little joy. The museum is also actively developing its YouTube channel, filling it with informative and interesting content.





Welcome to the 4th SpaceLand workshop in the beautiful island of Mauritius, where the IAF DG will honour all attendees with a key-note on IAF developments in such a fascinating and peaceful part of the world. The 4-day camp-fire event, hosted in luxury venue along one of the most beautiful palm-tree beaches of the Indian Ocean, will enable all participants to present their respective work, from crewed planetary exploration to STEAMM (Science, Technology, Engineering, Arts, Math and Medicine) in microgravity, Mars-gravity and Moon-gravity conditions for the progress of humankind.

Another objective of the workshop will be designing novel strategies and hand-on tools for developing Countries whose inhabitants are still far from a "space perspective", especially in these times troubled by pandemics and conflicts: all participants will also familiarize with new "low-gravity" and weightless R&D, tests, aerospace tourism and aero-launch service opportunities available on the **world's longest single-aisle vehicle** exclusively used by SpaceLand to facilitate access to Space, at the lowest price ever: welcome on board ! (<https://youtu.be/ywHjSqZux2s>). In this context, fully democratizing microgravity, Mars-G, Moon-G-related facilities is deemed to be one of the most important actions to "Space-engage" populations at large: from biomedicine and techno-sciences to culture and arts inspired by space programs, presentations will also focus on technology and life-science results transfer to enhance the quality of life on our planet and extend human longevity, benefiting all social layers of population, irrespective of gender, age, culture, geography,

religion: all of this having been already showcased by SpaceLand on board its first series of flights at NASA, in the past, also on behalf of research groups led by a Nobel Prize winning scientist, involving elderly, kids and 100% disabled laypersons since 2005 (e.g. <https://youtu.be/Um3mJtnfT2k>).

Last but not least, the event will dwell on the game-changing opportunity to characterize Mauritius as 1st Island of the Space Economy, where all the IAF members and affiliates are offered a new quality of working and living: during the 4-day event, workshop attendees will also be shown the magnificent site where a disruptive eco-sustainable SpaceLand City is unfolding, beachfront, along jaw-dropping paradise-like-lagoons with tropical mountains as surrounding scenery, featuring 5-star offices, apartments, eco-villas and green urbanistics far from socio-economic crisis and wars, to eventually implement a new life-style inspired by Space, on planet Earth (www.youtube.com/watch?v=hSYIU1VS-k). For applications: <https://www.iafastro.org/assets/files/events/affiliated-iaf-events/program-and-application-form-4th-spaceland-forum-2023.pdf>



Space research projects of masters and young scientists of St. Petersburg State University of Aerospace Instrumentation (SUAI), Russia

In 2022, the SUAI Department of Aerospace Measuring and Computing Complexes continues to work on educational and research projects.

Within the youth competitions for launching international CanSat standard microsatellite models SUAI team "SPb Sputnik" has prepared a new promising modular system for building a microsatellite mock-up. All its main functions, in particular those related to power and data transmission, fit into a volume corresponding to a 0.33 litre tin can. Such radiosonde rises with the help of a small rocket or balloon to a height of 1 to



D-Orbit Signs Contract with the European Space Agency (ESA) for the Improvement of Production Capabilities Related to Space Transportation

D-Orbit, the space logistics and transportation company, which is going public through a transaction with Breeze Holdings Acquisition Corp. (NASDAQ: BREZ), has signed a contract with the European Space Agency (ESA) for the improvement of production capabilities related to space transportation.

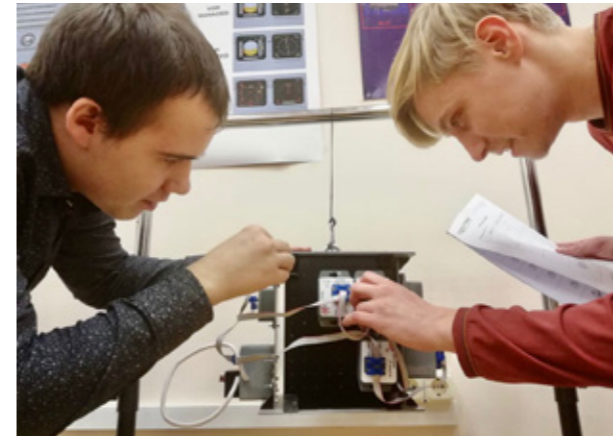
Through the €1,950,343 (approximately \$2 million) contract, ESA will provide funding for the development of an improved production system by **introducing lean manufacturing principles and testing that will enable D-Orbit to increase the performance and responsiveness of its proprietary orbital transfer vehicle (OTV) ION Satellite Carrier**, while driving down the cost. The contract also anticipates the improvement of various subsystems, including those involved in orbital maneuvering.

The contract, which kicked-off on May 5, 2022 is part of the European Space Agency's Commercial Space Transportation Services and Support to Member States Programme, BOOST, and it will have a duration of 12 months.

"We are excited about this opportunity to expand our existing collaboration with ESA," commented Stefano Antonetti, D-Orbit's VP of Business Development "The BOOST program, which is perfectly aligned with our goal to build a space logistic infrastructure, is a demonstration of ESA's focus on strategic goals that will set apart and advance the European space industry in key areas like space transportation."

BOOST is an ESA program designed to foster **commercial space transportation initiatives like spaceports, testing facilities, and associated services**, to promote the development of responsive launch capabilities for smaller satellites via microlaunchers (small rockets designed to launch satellites into Low Earth Orbit). This will allow satellite operators to benefit from more launch opportunities with vehicles that can be rapidly integrated with payloads at competitive prices. The program provides funding for the pre-commercial development of innovative European space transportation services that include launch opportunities, in-space transportation services, and return from space capabilities. D-Orbit signed another contract under the BOOST framework in June 2021 for the coordination of logistics and standardization of processes between different European spaceports and launch providers in order to provide a unified framework similar to the aviation industry.

10 km and then, during the descent, performs various studies: position in the atmosphere, aerial photography, various sonde sensors' data, radiosonde location in the GPS or Glonass system, and transmits data via the telemetry radio channel to the earth ground station.



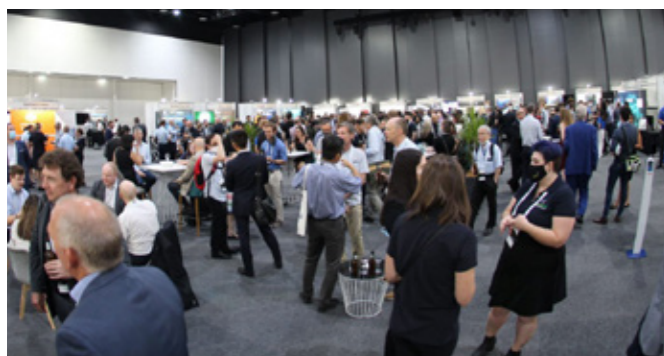
To perform test launches of the microsatellite mock-up, its own small training launch vehicle is being prepared. It should ensure the launch of the mock-up with a weight of up to 500 grams to a height of at least 600 meters. It is planned to use an injection rocket engine to ensure a stable vertical flight. Full-scale demonstration launches of the microsatellite mock-up are planned to be held in July 2022.

Since May 2022, within the framework of the All-Russian «Pocket Line» Competition of Experiments in Space and the Stratosphere, the SPb Sputnik youth team has been preparing its project which involves the development and conduct of an experiment in the upper layers of the Earth's atmosphere at an altitude of up to 20 km using a stratostat as a mean of lifting an experimental probe.





The Andy Thomas Space Foundation (ATSF), is dedicated to supporting the education and outreach goals of Australia's national space program. The Foundation aims to design and implement practical programs to enhance space industry awareness among the Australian community and drive national progress in education, research and innovation.



Our aim is to make space accessible for all.

In addition to our education and outreach activities, The Andy Thomas Space Foundation each year hosts the biannual Australian Space Forum in Adelaide, Australia (with a virtual component for those not able to attend in-person).

The 14th edition, held on October 25 at the Adelaide Convention Centre, will attract more than 1,000 national and international experts from industry, research and government, and includes the largest space exhibition area in Australia, with more than 100 exhibitors on display, and an innovative technological focused symposium.

The Australian Space Forum provides the perfect opportunity for organisations to stimulate ideas, share information about emerging technologies and network with influential space sector leaders as well as the broader community.

Proudly supported by the Australian Space Agency, the South Australian Space Industry Centre and SmartSat CRC, The Forum is Australia's leading space sector networking and innovation event.

Registrations have now opened for both delegates and exhibitors to attend the 14th Australian Space Forum. For your opportunity to leave your mark on Australia's growing space ecosystem, this is the place to be.

For further information on the event and to get an insight on the three industry-leading panels involved, click here > <https://forum.andythomas.foundation/14th-australian-space-forum/>



Remote-focused rivalry

Equally important as sending a properly constructed rover into space is the right software, especially its flexibility and adaptability to volatile conditions. That is why we require a similar attitude from participants of the European Rover Challenge competition in the remote formula, being certain that the experience gained during the competition will result in future work on real space missions.

In the remote formula at the ERC 2022, teams will be tasked with remotely controlling and running their software on the rover, which will be waiting for commands on the biggest artificial Mars Yard in the world located in Poland. Each team approaches the competition with the same equipment, so there is no way for anyone to get better starting conditions or extra resources.



Every team operates on a standardized rig provided by the Organizer: Leo Rover – a compact four-wheeled robot developed by Kell Ideas, and UR3 collaborative robot arm supervised by Poznan University of Technology experts. Leo runs on a

Raspberry Pi computer which is the central unit of the rover. The LINUX (Ubuntu) system that the rover is set up with is running the ROS (Robot Operating System) and the software from the ERC's partner Freedom Robotics, which allows easy remote control of the robot.



Driving the identical rover, teams must demonstrate specific skills in software development, proper mission planning, anticipation and management of risk, teamwork, role division, or task enforcement.

Find out more about the ERC competition here: <https://roverchallenge.eu/en/erc-robotics-competition/>
More about Leo Rover: <https://www.leorover.tech/>



IAASS International Lunar Search and Rescue Conference, 13-15 October 2022, China

CALL-FOR-PAPERS CLOSES 30 June 2022

The first [International Lunar Search and Rescue Conference](https://www.iaassconference2022.space-safety.org/) will be held from **13-15 October 2022** in **Wenchang, Hainan, China**. Co-organized by the International Association for the Advancement of Space Safety (IAASS) and Beijing Institute of Technology (BIT), this conference is a major opportunity to discuss SAR-related design, operational, legal and organizational matters in case of emergencies on Moon missions. The conference will also discuss the viability of establishing a Lunar SAR organization on the model of the submarine ISMERLO*



Contributed papers are welcome, and papers will be selected based on submitted abstracts.

The abstract (approximately 500 words) should clearly outline the paper's major elements of interest and its originality.

Papers will be selected based on:

- Relevance to the scope of the Conference
- Quality of the content
- The originality of the content

The Authors will be notified of the selection outcome by 29 July 2022.

All abstracts should be submitted by **30 June 2022**.

Event Timetable

| | |
|----------------------|-------------------------------|
| 30 June 2022 | Deadline for abstracts |
| 29 July 2022 | Notification to authors |
| 15 August 2022 | Final Programme |
| 30 September 2022 | Deadline for paper submission |
| 13 - 15 October 2022 | Conference |
| December 2022 | Publication Proceedings |

For detailed information on conference proceedings, and author registration, IAF members can visit the official conference website: <https://www.iaassconference2022.space-safety.org/>

About the Conference

The humanitarian principles of emergency assistance in space missions are enshrined in international space law. However, while space launch and re-entry emergencies use can be made of worldwide available search and rescue (SAR) capabilities for maritime and aviation emergencies, international cooperation on Lunar SAR has not yet started.

Hainan is a tropical touristic island in the south of China where

the Wenchang launch center is also located. All launches to the Chinese space station and deep space exploration missions take place from Wenchang. The conference program includes a visit of the Wenchang Launch Center. "Just as visitors to Florida can visit Kennedy Space Center -- and if they're lucky see a rocket launch -- go to the beach and even visit Disney World, Chinese visitors to Wenchang on Hainan Island now have much the same options. Hainan, sometimes known as China's Hawaii, is the location of China's newest space launch site at Wenchang, in the northeast corner of the island. Wenchang city planners and tourist officials are continuing developing the area around the launch site with hotels to accommodate tourists to the beaches, the launch site, and even a space-related theme park" (CNN). The development of this launch site began in 2009, and the Long March 7 took place in 2017.



The IAASS/BIT conference program includes a visit of the Wenchang Launch Center

The Conference Organisers

The International Association for the Advancement of Space Safety (IAASS) is a non-profit organization dedicated to furthering international cooperation and scientific advancement in the fields of space systems safety and sustainability. IAASS is a member of the International Astronautical Federation (IAF), and Permanent Observer at the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS).

The Beijing Institute of Technology (BIT) is a Chinese leading university with a traditional focus on science and technology. BIT was founded in 1940 in Yan'an, Shaanxi Province and was relocated to Beijing in 1949. The BIT strategic plan includes consolidating its strengths in mechanical and vehicle engineering and automation; leveraging its advantages and distinctive programs in IT-related disciplines; and developing new strengths in aerospace engineering.

* NOTE: [The International Submarine Escape and Rescue Liaison Office (ISMERLO) is an organization that aims to facilitate an international response for a distressed submarine and to improve the ability to respond to a call for assistance through its coordination role. ISMERLO supports all nations and pursues the involvement of global submarine-operating nations. ISMERLO is a military organization operating in an international environment focused on the humanitarian objective of saving lives at sea].



Astralintu Space Technologies is D-Orbit's New LATAM Strategic Partner

The Ecuadorian new space company will represent D-Orbit for select customers in Latin America and the Caribbean

D-Orbit, the space logistics and orbital transportation company, signed a strategic partnership agreement with Astralintu Space Technologies, a leading Ecuadorian space logistics company at the 2022 Global Conference on Space for Emerging Countries. Under the terms of the agreement, Astralintu will represent D-Orbit for customers in Latin America and the Caribbean, helping D-Orbit expand its commercial presence in the regions. Astralintu is a New Space company with capabilities in CubeSat manufacturing and payload integration, and space mission management based in Quito, Ecuador. The company focuses on providing in-orbit and ground station services to new and existing actors in Latin America and the rest of the world. Their S-band ground station will be integrated within the network of Aurora, D-Orbit's proprietary cloud-based mission control software suite, increasing its future global coverage. This integration was recently highlighted in a joint Workshop between the companies during the 2022 GLEC.

This is a clear example of collaboration between emerging countries and the space sector.



Egyptian Space Agency to inaugurate its "space city" by the end of 2022

Egyptian space agency focuses on its achievement's continuity, one of these is its space city, which will be on an area of 123 acres, adding that Egypt will be among 10 countries around the world that have space cities.

The city will contain 23 buildings to serve space activities, including a space academy, a research center, a museum, along with the African Space Agency.

Egyptian Space Agency CEO Dr. Mohamed al Quosy stressed that the space city will contain a center and satellite assembly, and that it is expected to open by the end of this year.

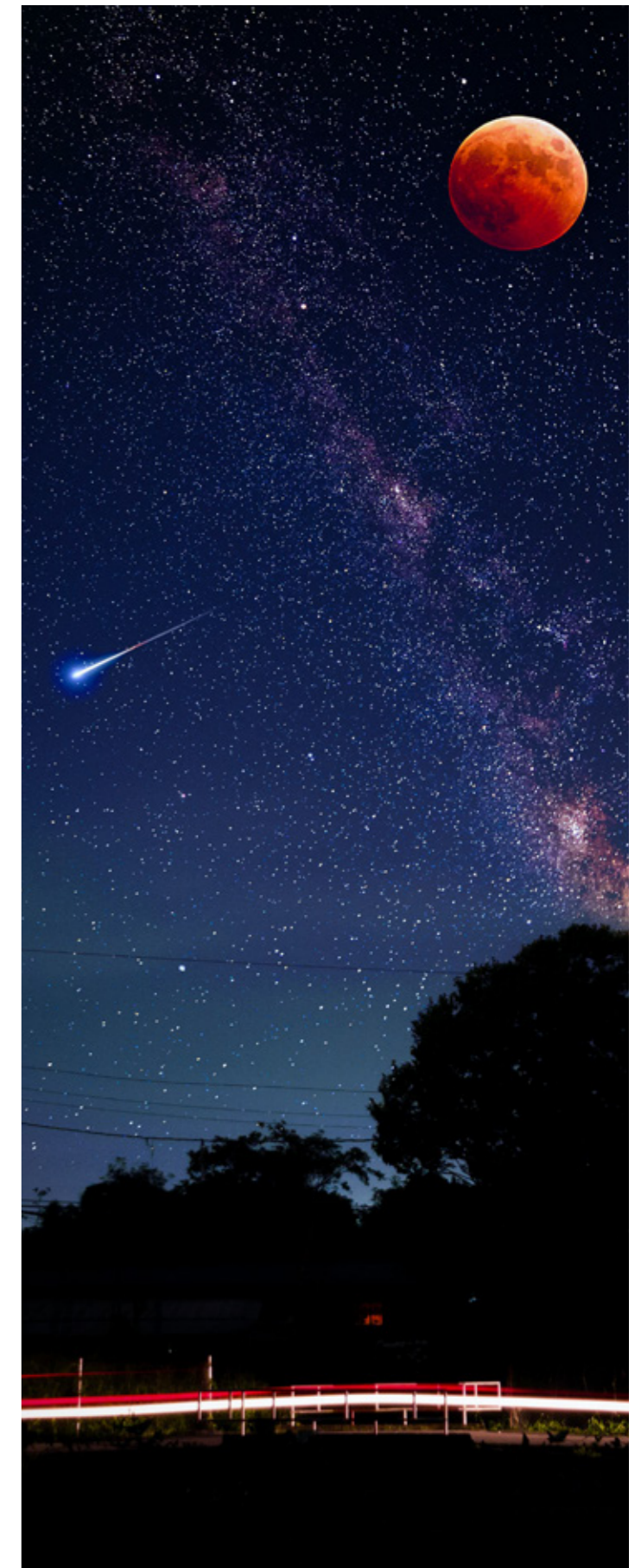
The Egyptian Space Agency (EGSA) has been currently working on carrying out SPNEX project to launch a satellite to monitor the negative effects of climate change by the end of 2023.

The project is supported and funded by the Academy of Scientific Research and Technology (ASRT) in cooperation with several scientific bodies and universities.

Earlier in May, EGSA signed a memorandum of understanding (MoU) with its peer in South Africa to promote cooperation in space technology and the peaceful uses of outer space.

The deal seeks to set up space discovery and exploration cooperation mechanisms and encourage knowledge and expertise sharing to make the optimum use of the countries' human and technological resources.

Following the inking ceremony at the EGSA premises, CEO of the Egyptian Space Agency Mohammed Afifi El-Quosy awarded CEO of the South African National Space Agency (SANSA) Andiswa Mlisa the shield of EGSA



Interview with Pierre W. Bousquet and Lionel Suchet



Lionel Suchet
IAF Vice President for Technical Activities,
Chief Operating Officer
Centre National d'Etudes Spatiales (CNES)

Early in his career Lionel Suchet focused on human spaceflight, first in charge of safety and human factors and then as Project Leader for five human spaceflight missions, during which time he also worked to set up the CADMOS centre for the development of microgravity applications and space operations at CNES.

He subsequently oversaw all of CNES's orbital systems projects before being appointed Deputy Director of the Toulouse Space Centre (CST). At the start of 2016, he created the agency's Directorate of Innovation, Applications and Science, which he headed.

Mid-2017, he was appointed Chief Operating Officer of CNES.



Pierre W. Bousquet
Deputy of the Associate Director for Exploration and Human Spaceflight,
Centre National d'Etudes Spatiales (CNES)

Senior expert on Planetology, Exploration and Microgravity in the Scientific Project Directorate at CNES in Toulouse, France. Co-chair of the IPC Steering Group of the International Astronautical Federation and Vice-Chair of the IAF Space Exploration Committee. Technical Advisor of the French delegation for PB-HME (ESA's Program Board on Human Missions and Exploration). Corresponding member of the International Academy of Astronautics (IAA). Senior member of the Association Aéronautique et Astronautique de France.

From 2008 to 2016, head of the Planetology and Microgravity Project Office. French contributions to the following planetology missions were developed or initiated over that period: Mars Science Laboratory, Bepi-Colombo, Exomars, JUICE, Hayabusa 2 (Mascot lander dropped in 2018 on asteroid Ryugu), INSIGHT and Mars 2020. Graduated from SupAéro Engineering School in Toulouse in 1986. MSc in satellite telecommunication engineering from the University of Surrey in 1987.

More than 70 publications at international conferences or in magazines with reading committees. Occasional lecturer at French engineering schools ISAE, EUROSAE and EMAC.

1. Do you see the IAC 2022 having a positive impact on French space activities?

The choice of Paris as the host city for IAC 2022 confirms France's international stature in space. Paris and the surrounding Ile de France region are a major hub for spacefaring Europe (with the headquarters of CNES, ESA and other French and European space firms), Toulouse is Europe's space capital and France is one of the world's leading space powers and among the key contributors to Europe's space programme. At the end of this year, Paris will also be hosting the ESA Ministerial Conference that is set to chart the future course of this space programme.

IAC 2022 will be a catalyst affording great opportunities across the French space community. By bringing together institutional, industrial and scientific stakeholders from the international space arena, the congress will provide unique momentum to spotlight France's space activities, boost synergies and forge ties with an increasingly diverse panel of international partners.

2. What themes does CNES intend to highlight at IAC 2022?

One of CNES's key goals is to develop the space ecosystem in its broadest sense, encompassing firms developing space solutions and those supplying solutions that rely on space data. Our motto for IAC 2022, Space4All, intends to highlight the countless domains—agriculture, fisheries, land planning, mobility, healthcare, tourism, construction and public works, etc.—for which space offers new solutions. Indeed, we believe that future IACs should evolve to bring together not only the big players in space, but also all those who benefit from it indirectly. It is our ambition to initiate this shift at this year's congress in Paris.

3. Are there any specific local initiatives or attractions being organized for this year's IAC?

CNES plans a public open day on Wednesday 21 September for families. Besides the exhibition and sponsors' large-scale mock-ups on display, visitors will be able to attend events with the astronaut Thomas Pesquet, planetary exploration specialists, experts in Earth

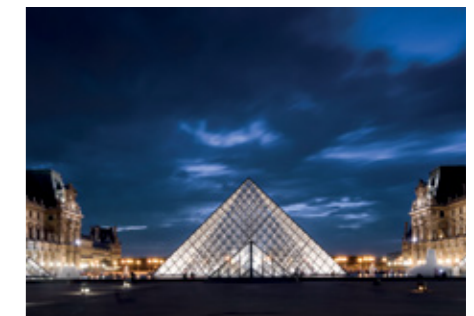
observation and applications serving citizens, and even authors of space-inspired fiction. There will also be a range of visits to technical facilities in Paris, Toulouse and Cannes.

4. What can delegates and other IAC visitors expect to enjoy about this particular IAC, given its location?

Paris is a fantastic place to meet experts from all over the world, as it's such an attractive destination and very easy to get to. France is one of the world's most visited countries and its capital offers a wealth of cultural, historical and heritage riches that make any stay worthwhile.

5. How would you summarize the opportunity offered to cities in hosting an international congress such as the IAC?

For candidate cities, hosting IAC is sure to attract the world's top space experts and journalists from around the globe. It's an exceptional showcase with significant spin-offs for business and tourism before, during and after the congress.





International Astronautical Federation

100 Avenue de Suffren
75015 Paris, France
Tel: +33 1 45 67 42 60
E-mail: info@iafastro.org
www.iafastro.org

Be part of the conversation **@iafastro**



Connecting @ll Space People



To unsubscribe, please send an email to newsletter@iafastro.org | E-mail: newsletter@iafastro.org

International Astronautical Federation

The next IAF newsletter will be issued in September 2022