

IAF ENTREPRENEURSHIP AND INVESTMENT COMMITTEE

INTRODUCTION

The Entrepreneurship and Investment Committee (EIC), inaugurated in 2007, promotes dialogue among entrepreneurs, established companies, government, and academia focused on encouraging economic innovation and attracting private investment. Our committee gathers a diverse group of experts from engineers, physicists, and scientists to experts in the areas of space economy, business, entrepreneurship, social research, and education. Together, we aim to generate ideas and inspire initiatives that concretely contribute to technology-driven economic growth in various regions around the world.

LATEST DEVELOPMENTS

Several recent developments such as earth observation capabilities, national security satellites, telecommunication and internet infrastructure are crucial to our mission. EIC sees growing private and public sector cooperation (for example, NASA's recently awarded contract to SpaceX to take astronauts from lunar orbit to the surface of the moon). These new developments could be the first stages of a true space-for-space economy. EIC members are important contributors to private and public space sector development. Some of our members' recent awards and contributions are:

- Our Chair, Ken Davidian (FAA): Received the 2021 IAF Distinguished Service award.
- Our Vice Chair, Juergen Drescher (DLR): DLR Aerospace Medicine / Radiation Biophysics joined first commercial mission to the Moon with the ASTROBOTIC Peregrine Lunar Lander.
- Chuck Lauer (Spacebit Chief Business Development Officer): Booked a second NASA CLPS flight in 2021 and is now on both the Intuitive Machines and Astrobotic lunar landing missions in Q4 2021 with two different designs for micro-robotic rovers.

(NOTE: Chuck Lauer passed away shortly after the spring meetings.)

- Nancy C. Wolfson: In addition to writing this EIC Brief, authored the EIC article for the June edition of the IAF Newsletter, continuing her work in planetary defense research. Her latest presentation was at PDC 2021.
- David Bearden (JPL): Continues as manager of JPL's Office of Formulation and Innovation.
- A.C. Charania (Blue Origin): Supporting development of Blue Origin's Blue Moon cargo lander service, including interaction with global customer base.
- Ian Christensen: Working on the CONFERS project to develop standards and best practices for satellite servicing, which now has more the 40 members from 9 countries.
- Doug Comstock (NASA): Now NASA's Deputy CFO for Agency Budget, Strategy & Performance.
- John Culton (Centre for Sustainable Planetary and Space Resources): Ran the first-ever Australian Rover Challenge.
- Max Ferraris (Saipem): Developed his space law master's degree thesis entitled "Cooperation in the space sector as an instrument of soft power".
- Rolf-Dieter Fischer (DLR): Became new member of the board for Innovation and Technology Transfer, according to DLR's new governance structure, beginning 1 March 2021.
- Luisella Giulicchi (ESA): Copernicus Sentinel-6 Michael Freilich was launched on 21 Nov 2020 by Space X on Falcon 9 and it successfully completed the in-orbit satellite verification.
- Jacob Hacker: Moderated the G20 Space Economy meeting in October 2020. "Great to have all of the heads of agency on one call", he shared.
- Philippe Hazane: Retired in February of 2022 but remains active in space business.
- Jim Keravala (OffWorld): Continued expansion of OffWorld's activities during the pandemic.
- Joerg Kreisel (JKIC): Continues his work as an

Advisor of several NewSpace companies in micro launchers, space components, digitalization, robotics, and exploration, especially focusing on international partnerships, strategy, and finance.

- Lisa La Bonte: Coined a new word for Arab astronauts - NAJMONAUTS!
- Gary Martin: ISU took all their programs virtual during the Covid crisis. This summer ISU will conduct the SSP21 in 3 different formats.
- Jose Medina (Space Latam): Worked on co-ordinating the first Paraguayan Space Ecosystem Meeting in November with 40 organizations.
- Piero Messina: Conducted a survey on space and maritime to enhance the intake of space-based products by the global maritime community (ESA signed a MoC with WOC).
- Additional Committee Members: Marc Boucher (Canadian Space Commerce Assn), Joyeeta Chatterjee (Airbus), Brad Cheetham (Advanced-Space), Yann Guoy (Airbus Defence and Space), Jenn Gustetic (NASA HQ), Michal Kunes (ESA), Zoi Lendway (Airbus), Benjamin Lenoir (Thales Alenia Space), Clay Mowry (Blue Origin), Thomas Olson (AVEALTO), Misuzu Onuki (New Space Consultant), Sinead O'Sullivan (Harvard Business School), Ana Raposo (ESA ECSAT), Christian Sallaberger (Canadensys Aerospace Corp), Luigi Scatteia (PwC Advisory), Elizabeth Seward (Airbus Ltd), Manny Shar (Bryce Space & Technology), Olga Stelmakh-Drescher (Exolaunch), Daria Stepanova (German Orbital Systems GmbH), Sergio Tabasco (SGAC; MODIS), Helen Tung (Moon Village Assn), Dapeng Wang (Biehang University), Julio Aprea (EAS HQ), Paola Belingheri (WIA Europe), George Danos (Cyprus Space Exploration Org).

EIC members continue ongoing work and address creative business approaches to serve government and private space sector.

BREAKTHROUGHS

Besides SpaceX, other major private companies (such as Boeing, Blue Origin and Virgin Galactic) work toward important upcoming breakthroughs to sustainably put people in space. These companies lead this new chapter of spaceflight and, marking a new chapter led by the private space sector.

ACTION PLAN FOR THE YEAR

Members of the EIC continue to work in our fields with an eye for entrepreneurial innovation, as entrepreneurs and investors move the needle toward an enhanced space industry. This year EIC worked on building infrastructure around expanding awareness and exposure for space entrepreneurs, investments, and the development of spaceports. To this end, and utilizing the Dubai IAC as a platform from which to obtain both greater community and media recognition, EIC created the following activities:

- GNF session – “The Impact of Spaceports in the Global Space and Non-Space Community” Panel Status: Under review by the IAF – Lead by Nancy C. Wolfson
- GNF session: Space Investment Panel
- Status: Under review by the IAF – Lead by Lisa La Bonte & Joerg Kreiser
- EIC IAF Award: Lead by Gary Martin in collaboration with Lisa La Bonte and Nancy C. Wolfson
- Space Bootcamp – Lead by Thomas Olson
- The EIC to host the E6 Business & Innovation Symposium, responsible for four sessions (E6.1, E6.2, E6.3 & GTS1/E6.5).