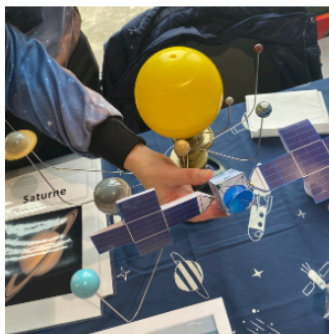


ANNUAL REPORT 2024



WORLDWIDE EVENTS

In 2024 an impressive 640 events were organised worldwide, making use of the free resources available on asteroidday.org. These events have successfully brought communities together across the globe, with the top five participating countries being Brazil (310 events), India (68 events), the United States (41 events), Colombia (33 events), and Italy (25 events). Organised by a diverse range of contributors—including astronomical associations, museums, and amateur astronomy groups—these events highlight the universal enthusiasm for space science and asteroid awareness.



ASTEROID DAY SPACE LECTURE

On Friday, 28 June, at 18:00, the Asteroid Day Space Lecture took place at Cercle Cité in Luxembourg, with 100 attendees in person and 901 joining online.

The event opened with insightful presentations by Mirel Birlan (CNRS), Hoor Abdelrahman AlMaazmi (Emirates Space Agency), Simon Grimm (University of Zurich), and Alex Karl (Planetary Defence Conference). A keynote on the HERA Mission by GOMSpace followed, leading into an engaging panel discussion on "The Latest News and Outlook," featuring Patrick Michel (CNRS), Franco Perez Lissi (ESA), Marguerita Cardi (Tyvak International), and Alan Fitzsimmons (Queen's University Belfast).

SPACE CAFE (co-organised)

On Friday, 28 June at 20:00, Space Cafe took place at the Musée National d'Histoire Naturelle, co-organised with Kyle Acierno (Exobiosphere) and his team, attracting 120 attendees. The event provided a valuable opportunity for networking and discussion among space enthusiasts and professionals. Later, at 22:00, the Astronomer for a Night experience welcomed 40 participants, who had the unique opportunity to explore the night sky in real time. Guided by astronomer Gianluca Masi from the Bellatrix Observatory in Rome, participants used the Virtual Telescope Project to observe celestial objects and engage with a renowned expert.



SpaceConnectsUs

During the Asteroid Day celebrations, five schools across Luxembourg had the honour of hosting esteemed astronauts and space scientists. Each visit provided students with a valuable opportunity to engage directly with leading experts in the field. These sessions were highly interactive, fostering an environment where students were encouraged to ask insightful questions and participate actively in discussions. Notably, at Lycée Technique du Centre and Lycée Vauban, the Luxembourg Space Agency's Ambassadors joined the programme as part of the *Astronaut for a Day* initiative, further enriching the experience for students.



| Name of the School | Astronauts/Experts | Number of students | Age |
|--------------------------------|---|--------------------|-------|
| Lycée Technique du Centre | Julie Payette | 250 | 14-17 |
| Lycée Vauban | Julie Payette and Mark Polansky | 300 | 12-16 |
| Lycée Privé Fieldgen | Gianluca Masi, Patrick Michel, Mirel Birlan | 150 | 12-16 |
| Lycée de Garçons du Luxembourg | Wanda Diaz-Merced | 300 | 14-17 |
| Maison Relais Schuttrange | Patrick Michel, Mirel Birlan | 100 | 9-13 |

ASTEROID DAY FESTIVAL

Held on Saturday, 29 June from 10:00 until 18:00 at Cercle Cité, the Asteroid Day Festival attracted 800 attendees in person as well as 1,500 stream views on YouTube. Featuring 18 interactive booths, the event offered a dynamic learning environment for all ages. The festival included eight panel discussions and two astronaut meet-and-greet sessions.

Asteroid Day Festival 2024 showcased a diverse group of participants, with 17 women and 25 men contributing as moderators, speakers, and astronauts. While the space sector remains predominantly male, the event highlighted the important contributions women are making across the industry.

Notable highlights included:

- An all-female Young Researchers' Panel, presenting the achievements of the next generation of women in space research.
- Hoor Abdelrahman Al Maazmi, a Space Science Researcher from UAE, sharing insights from her work.
- Wanda Díaz-Merced, a visually impaired astronomer, presenting her pioneering research in data sonification.
- Julie Payette, a Canadian astronaut who engaged with attendees and shared her experiences in space exploration.

These inspiring individuals reflected the growing diversity in the sector, offering unique perspectives and driving innovation.



[Video highlight link](#)

Festival Programme

[AD Festival panels stream recording](#)

10:00 - 10:30: Welcome

- **Host/Moderator:** Michèle Weber (FNR)
- **Guests:**
 - Maurice Bauer (VDL)
 - Markus Payer (Asteroid Foundation)

10:30 - 11:00: Space Education: the Luxembourg Vision

- **Host/Moderator:** Eric Tschirhart (UNIVERSEH)
- **Speakers:**
 - Maria Vittoria D’Inzeo (European Commission)
 - Philippe Glaesener (SES Satellites)
 - Yves Elsen (University of Luxembourg)
 - Andreea Monnat (FNR)

11:00 - 11:30: Astronaut Meet and Greet

- **Astronauts:**
 - Mark Polansky (NASA)
 - Julie Payette (NASA)

11:30 - 12:15: Data Sonification in Space

- **Host/Moderator:** Patrizia Luchetta (Charlotte in Red)
- **Speakers:**
 - Wanda Díaz-Merced (CNRS)
 - Duncan Geere (Loud Numbers)
 - Miriam Quick (Loud Numbers)

12:15 - 12:45: Space Resources and Sustainability

- **Host/Moderator:** Hanna Siemaszko (SciLux)
- **Speakers:**
 - Kathryn Hadler (ESRIC)
 - Sabrina Andiappane (ClearSpace)
 - Edder Rabadan Santana (Lunar Outpost)
 - Günes Ünüvar (Luxembourg Centre for European Law)

12:45 - 13:15: Asteroid Missions: From DART to HERA

- **Host/Moderator:** Patrick Michel (CNRS)
- **Speakers:**
 - Alan Fitzsimmons (Queen's University of Belfast)
 - Margherita Cardi (Tyvak International)
 - Franco Perez Lissi (ESA)

13:15 - 13:45: Break

14:00 - 14:45: Augmented Reality, Virtual Reality, and AI in Space

- **Host/Moderator:** Djamila Aouada (SnT)
- **Speakers:**
 - Leonie Bensch (ESA)
 - Oliver Bensch (DLR)
 - Nicolas Maillot (Thales Alenia Space)
 - Mohamed Ali (LSA)

14:45 - 15:45: Young Space Researchers' Work Presentation

- **Host/Moderator:** Michèle Weber (FNR)
- **Speakers:**
 - Daria Alice Ciobanu (EURONEAR project)
 - Julia Bringewald (LGL)
 - Lisa Krämer Ruggiu (AMGC Vrije Universiteit Brussels)

15:45 - 16:15: Life Onboard the International Space Station

- **Host/Moderator:** Cordula Schnuer (Luxembourg Times)
- **Astronauts & Cosmonaut:**
 - Mark Polansky (NASA)
 - Julie Payette (NASA)
 - Dumitru-Dorin Prunariu (ROMSpace)

16:15 - 16:45: Astronaut Meet and Greet

- **Astronauts & Cosmonaut:**
 - Mark Polansky (NASA)
 - Julie Payette (NASA)
 - Dumitru-Dorin Prunariu (ROMSpace)

16:45 - 17:00: Poster Competition: Winners Announcement

17:00 - 17:45: What's Next in Space?

- **Host/Moderator:** Patrick Michel (CNRS)
- **Speakers:**
 - Gianluca Masi (Virtual Telescope Project)
 - Hoor Abdelrahman AlMaazmi (UAE Space Agency)
 - Simon Grimm (ETH Zurich)
 - Mirel Birlan (CNRS - Observatoire de Paris)

17:45: Closing Words

- Michele Weber (FNR)
- Markus Payer (Asteroid Foundation)

Booths at Asteroid Day 2024

Asteroid Day 2024 featured a vibrant array of booths, showcasing organisations and companies from various sectors and geographical locations. The exhibitors reflected a mix of educational institutions, research organisations, government agencies, and private companies.

Educational Institutions and Foundations

- **MNHN (National Museum of Natural History, Luxembourg):** Brought an immersive planetarium experience, teaching attendees about the night sky.
- **MS20 Vauban (Luxembourg):** Hosted hands-on workshops for coding robots and soldering mission PCBs, encouraging STEM learning for all ages.
- **Fondation Jeunes Scientifiques (Luxembourg):** Highlighted young researchers' space projects, including a DIY telescope and meteorite collection.

Research and Space Organisations

- **ESERO (Luxembourg):** Engaged families with a "Build Your Own Mars Rover" activity.
- **ESRIC (Luxembourg):** Showcased innovative work on space resources and their utilisation.
- **SnT, University of Luxembourg:** Presented cutting-edge AI and event-sensing technologies for space operations.

Government and International Space Agencies

- **European Space Agency (ESA, Europe):** Interactive VR experience on the Hera planetary defence mission.
- **Luxembourg Space Agency (LSA):** Provided insights into Astronaut for a Day zero gravity flight and offered hands-on experiments.

Private Companies

- **Redwire (USA/EU):** Demonstrated a space-themed game involving satellite navigation and asteroid avoidance.
- **OHB (Luxembourg):** Introduced an interactive experience to create space adventures.
- **JBF Toys and Trains (Netherlands):** Organised LEGO building activities with a space theme.
- **Slooh (USA):** Showcased their space exploration platform for classroom learning.

Cultural and Media Representation

- **Manuel Huss (Luxembourg):** Displayed astrophotography of deep-sky objects and the Moon.
- **Mediahuis (Luxembourg):** Provided media coverage of the event.
- **Photobooth (Luxembourg):** Offered space-themed photo opportunities for attendees.

Youth and Community Engagement

- **Rocket Society (Luxembourg):** Distributed flyers about rocketry and space exploration.
- **Take Off Show (Luxembourg):** Delivered a practical challenge with an engaging space theme.

This diverse line-up of exhibitors underscored the global nature of space exploration, with participants from Luxembourg, Europe, and beyond coming together to inspire curiosity and innovation in space science.

Attendees

Through active observation during Asteroid Day Festival 2024, we identified clear trends in audience demographics, particularly among younger attendees. Children comprised approximately 40% to 50% of the total audience. Within this group, an estimated 75% were aged between 6 and 14, demonstrating strong engagement from school-aged children and their families.

These findings highlight the interest in space and science among younger generations, emphasising the importance of designing activities and content tailored to this age group. Interactive experiences, such as VR simulations, LEGO building, Pop-up planetarium, and hands-on workshops, proved particularly popular, fostering curiosity and enthusiasm for STEM subjects.

PRESS COVERAGE

They wrote about Asteroid Day Luxembourg 2024:



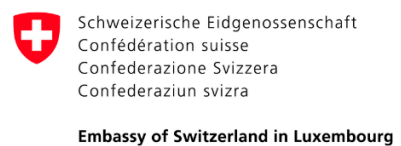
ASTEROID FOUNDATION PARTICIPATION & EVENTS BY PARTNERS

Throughout the year, the Asteroid Day Foundation actively participated in a range of events, both in person and online, alongside our partners, showcasing our commitment to space education and outreach in Luxembourg.

- **Sainte Sophie la tête dans les étoiles:** Asteroid Foundation facilitated the meeting between 40 students and Dr Patrick Michel.
- **Breakfast with a Cosmonaut** at the Musée National d'Histoire Naturelle featured Cosmonaut Dumitru Prunariu, Vice Chair of the Asteroid Foundation and engaged 30 attendees.
- **World Space Week:** Programme Manager Maud Marocki moderated an online panel.
- **Astronomy Days by ESERO:** Asteroid Foundation hosted a booth that engaged 800 participant (families with children)
- **Launch of HERA Mission:** Board Director Razvan Pertu-Radu represented the Asteroid Foundation.
- **Space Resources Week:** Board Director Maher Kalaji moderated a panel.
- **Career Mixer at St Georges:** Programme Director Anna Bordus had insightful exchanges with students about her career path that led her to Space and about careers in the Space sector in general.
- **Moon Village Association panel on Lunar Governance and UN-related topics:** the discussion was moderated by the Foundation's Vice Chair, Dumitru-Dorin Prunariu.

FUNDING AND SUPPORT

The Asteroid Foundation continues to thrive thanks to the generous funding and support we receive from various partners, organisations, and individuals. This support enables us to carry out our mission of raising awareness about asteroids and space science, as well as organising impactful events and educational initiatives. Here is our network of supporters powering our efforts in asteroid awareness and space education:



THANK YOU TO OUR SPONSORS!