## **United Kingdom**

## Item 15. Space Exploration and Innovation

## Statement:

Chair, Distinguished Delegates,

The UK would first like to congratulate China on the recent successful return of their lunar probe, Chang'e 6, from the far side of the moon.

Exploring space, through both robotic and human missions, has the power to create new knowledge; develop new technologies; grow our economies and inspire humanity. The challenges we set ourselves inspires us to innovate and compels us to cooperate. Breakthroughs in science and development of cutting-edge technology help us to travel further into the Solar System and benefit us all back on Earth. The UK continues to maximise the socio-economic benefits created by the space sector, and to use our shared goals to foster international relations.

The UK remains a major contributor to the European Space Agency's Rosalind Franklin mission, which will search for evidence of Life on Mars, and welcomes the recent signing of the Memorandum of Understanding between NASA and ESA concerning Cooperation for this mission. This includes provision for the first European provided Radioisotope Power Systems developed as part of the European Space Agency's ENDURE programme. Reliable, long duration power systems will be a critical enabler of all future exploration. In parallel, we are supporting studies for small nuclear reactors in space, which could have a transformative effect on space exploration.

British astronaut Rosemary Coogan recently graduated from basic training and is expected to fly on the International Space Station in the coming years. Another Briton, John McFall, is the world's first astronaut with a physical disability and is taking part in a Feasibility Project with the European Space Agency which is paving the way for a future flight.

In January 2024, the NASA-ESA Peregrine Ion trap mass spectrometer (PITMS) instrument launched towards the moon on Peregrine Mission One. A core component of PITMS was the Exospheric Mass Spectrometer (EMS) which was built in the UK by the Open University and RAL Space. Whilst the mission didn't make it to the moon, the PITMS instrument worked as expected, gathered useful data, and from the European perspective it was 90% success and we are very pleased with this result.

The UK welcomed the organization of the first United Nations Conference on Sustainable Lunar Activities by the Office for Outer Space Affairs (UNOOSA), in Vienna on June 18th, 2024. This conference was an important first step in highlighting the importance of embedding Lunar Sustainability within all missions, goals, priorities and approaches to ensure safe and sustainable lunar exploration into the future.

Guided by the foundational principles of the Outer Space Treaty, the Conference promoted constructive, insightful, and inclusive exchanges, identifying the existence of common ground between parties. The UK was pleased to see highlighted important topics in sustainable lunar exploration such as, international cooperation, Lunar environmental consideration, sustainable lunar disposal practices, consultation, interoperability, due regard, scientific investigation as well as information sharing, capacity building as part of this valuable conference.

The UK recently hosted the Committee on Space Research's (COSPAR)'s Inaugural International Planetary Protection week at the Royal Society in London. The event brought together leading experts, scientists, policymakers and space agencies from around the world for a week of discussions. With an increasing number of space missions targeting various celestial bodies, including Mars, Europa, and the Moon, the importance of maintaining the integrity of these environments while protecting our own biosphere has never been greater.

Thank you chair