

UNCOPUOS Scientific and Technical Subcommittee

60th Session, Vienna/Online, 6-17 February 2023

Statement by Germany on

Agenda item 4: United Nations Programme on Space Applications

Mr. Chair, distinguished delegates,

we highly appreciate the work carried out by the United Nations Programme on Space Applications and we are pleased to contribute to this project through the Drop Tower Experiment Series (DropTES).

DropTES is a fellowship programme of the Office for Outer Space Affairs in close collaboration with the Center of Applied Space Technology and Microgravity in Bremen and the German Space Agency, in which students can learn and study microgravity science by performing experiments in a drop tower. Scientific topics range from fluid physics, combustion, thermodynamics to material science and biotechnology.

The Bremen Drop Tower in Germany is a ground-based laboratory with a drop tube of a height of 146 meters, which can enable short microgravity experiments with a duration of 4.5 to 9 seconds. In 2022, a new facility called the GraviTower Pro was added. This facility offers a high repetition rate with microgravity times of 2.5 second for performing experiments.

We are very pleased that the seventh cycle of DropTES was again a success. In this cycle, a team from the Universidad Católica Boliviana "San Pablo" was awarded the fellowship through competitive selection in 2020. While restrictions due to the Covid-19 pandemic delayed their journey to Bremen, Germany, for two years, the team was finally able to perform its experiments within five drops at the ZARM Drop Tower in July 2022.

The objective of their experiment was to determine 3D printing feasibility under microgravity conditions, measure intra-structure remaining liquid

resin after light exposure, and compare manufacturing time as well as amount of used material while processing the same piece between two different approaches. We look forward with great interest to the publications resulting from this experiment, and we wish the team all the best in their future endeavours.

It is also our great pleasure to announce that the DropTES programme, which provides a unique capacity-building opportunity for young and innovative scientists and researchers, will be continued in the future. The Announcement of Opportunity for the eight cycle of DropTES has recently ended on the 22nd of January this year. The proposals are now under evaluation and the winning team will be awarded five drops, catapult shots or half days at the new GraviTower Pro in Bremen, Germany.

Mr. Chair, distinguished delegates,

we highly appreciate the collaboration with the Office for Outer Space Affairs under the United Nations Programme on Space Applications and look forward to contribute to it in the future.

Thank you for your attention.