

Germany, Item 9

UNCOPUOS Scientific and Technical Subcommittee

62nd Session, Vienna, 3–14 February 2025

Statement by Germany on

Agenda item 9: Near-Earth objects

Madam Chair, distinguished delegates,

2024 was a year of significant progress for planetary defence. Based on a proposal by the International Asteroid Warning Network, IAWN, and the Space Mission Planning Advisory Group, SMPAG, and following our discussions here at the Committee, the UN General Assembly passed resolution 79/86. This resolution establishes that 2029 will be the international year of asteroid awareness and planetary defence, on the occasion of the close approach of asteroid Apophis in April 2029. It invites member states, civil society and many other stakeholders to conduct educational activities related to asteroids, raise awareness of their potential hazards and engage in observations of near-Earth objects. These activities will help to promote a better understanding of asteroids among the general public and inspire young people to become interested in the sciences. We therefore fully endorse the declaration and want to thank member states, and in particular Romania, for making this development possible. We look forward to preparing national activities in advance of the international year and to exchanging information with other delegations on their own preparations.

2024 was also a year of scientific progress in our understanding of asteroids and in the development of mitigation strategies to prevent an impact on the Earth of a near-Earth object. On October 7th, the European Space Agency's Hera probe was successfully launched and sent on its journey to the Didymos and Dimorphos binary asteroid system. Hera follows on from

NASA's Dart mission which impacted Dimorphos in 2022, and aims to investigate the changes in its dynamical and physical characteristics, such as in the orbital period, shape, and mass of the asteroid, in order to gain a better understanding of options and methods for the deflection of dangerous asteroids. Germany is the largest contributor to the mission and multiple German institutions have participated in the development of the spacecraft and its scientific payloads. The spacecraft itself was developed and built by OHB SE in Bremen. A newly developed antenna made of carbon-fibre-reinforced materials was produced by Munich-based company HPS, while the two Asteroid Framing Cameras are from Jena-based company Jena-Optronik. The Dresden University of Technology is heavily involved in the development of the radar experiment on Juventas, a CubeSat carried by Hera that will observe Dimorphos at close range and ultimately attempt to land on it in the final phase of the mission to measure its surface characteristics, interior structure and gravitational field. The German Aerospace Center DLR is involved in terms of science through its Microgravity User Support Centre in Cologne and the DLR Institute of Planetary Research in Berlin. With several space agencies involved, such as JAXA, NASA, ESA and European national space agencies, the mission is also a great example of the value of international cooperation in space science and exploration. We look forward to the arrival of Hera at the asteroid system in 2026 and the resulting scientific return and valuable insights.

Madam Chair,

this year, SMPAG has also conducted the first exercise to establish processes for planetary defense. During this exercise, SMPAG also took stock on the national processes for asteroid deflection. SMPAG showed areas where more work needs to be done at national and international levels in order to develop recommendations on the mitigation of an asteroid threat. The result of the exercise was laid out in conference room paper [...]. We hope that these results can stimulate further work in order to improve our preparedness for a potential asteroid threat in the future.