

# DWARF PLANETS

April 23, 2020

**Context:** There is a claim for the 6th dwarf planet Hygiea

- As of today, there are officially five dwarf planets in our Solar System.
- The most famous is Pluto, downgraded from the status of a planet in 2006.
- The other four, in order of size, are Eris, Makemake, Haumea and Ceres.
- The 6th one, called as Hygiea, has so far been taken to be an asteroid. It lies in the asteroid belt between Mars and Jupiter.
- Using observations made through the European Space Organisation's SPHERE instrument at the Very Large Telescope (VLT), astronomers have now found Hygiea may possibly be a dwarf planet. This is the first time astronomers have observed Hygiea in high resolution to study its surface and determine its shape and size.
- VLT observations indicate that Hygiea satisfied all the conditions of a dwarf planet

**The International Astronomical Union sets four criteria for a dwarf planet**

- it orbits around the Sun,
- it is not a moon
- it has not cleared the neighbourhood around its orbit
- it have enough mass that its own gravity pulls it into a roughly spherical shape



Other

- SPHERE( of European Space Organisation) is a powerful planet finder and its objective is to detect and study

new giant exoplanets orbiting nearby stars using a method known as direct imaging – in other words, SPHERE is trying to capture images of the exoplanets directly, as though it were taking their photograph