## ESA's PLATO mission: Development status and upcoming milestones

Ana María Heras<sup>1</sup> Heike Rauer<sup>2</sup> Conny Aerts<sup>3</sup> Magali Deleuil<sup>4</sup>
Laurent Gizon<sup>5</sup> Marie-Jo Goupil<sup>6</sup> Miguel Mas-Hesse<sup>7</sup> Isabella Pagano<sup>8</sup>
Giampaolo Piotto<sup>9</sup> Don Pollacco<sup>10</sup> Roberto Ragazzoni<sup>11</sup>
Gavin Ramsay<sup>12</sup> Stephane Udry<sup>13</sup>

**Published on:** Jun 20, 2022

URL: https://baas.aas.org/pub/2022n5i504p01

License: Creative Commons Attribution 4.0 International License (CC-BY 4.0)

<sup>&</sup>lt;sup>1</sup>European Space Agency, <sup>2</sup>DLR Inst. of Plan. Explor., <sup>3</sup>KU Leuven,

<sup>&</sup>lt;sup>4</sup>Lab. D'Astrophysique de Marseille. <sup>5</sup>Max Planck Institute for Solar System Research.

<sup>&</sup>lt;sup>6</sup>LESIA/Observatoire de Paris, <sup>7</sup>Centro de Astrobiología (CSIC/INTA),

<sup>&</sup>lt;sup>8</sup>INAF-Osservatorio Astrofisico di Catania, <sup>9</sup>Università degli Studi di Padova,

 $<sup>^{10}</sup>$ University of Warwick,  $^{11}$ INAF-Osservatorio Astronomico di Padova,

 $<sup>^{12}</sup>$ Armagh Observatory and Planetarium,  $^{13}$ University of Geneva

PLATO is the third medium class mission in ESA's Cosmic Vision programme, with a planned launch date by end 2026. Its main objective is the detection and bulk characterisation of exoplanets down to Earth size, with emphasis on planets orbiting up to the habitable zone of bright solar-like stars. PLATO will study host stars using asteroseismology, allowing us to determine the stellar properties with high accuracy and substantially enhance our knowledge of stellar structure and evolution. Following the successful Critical Milestone Review, ESA has given green light to continue the implementation of the spacecraft and the payload, which includes the serial production of its 26 cameras. We will present the status of the satellite and the ground segment development, and report on the progress made on the PLATO Input Catalogue, the sky field selection, the ground-based follow-up observations programme, and on other activities associated with the scientific preparation. We will also give an overview of the main upcoming milestones in the mission development and in the observing strategy definition.