SYMPOSIUM ON NEW TECHNOLOGIES FOR FUTURE SPACE ASTRONOMY MISSIONS (A7)
Long Term Perspective (1)

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ESA COSMIC VISION AND TECHNOLOGY WORK PLAN (INVITED)

Abstract

This paper presents an overview of the future science mission candidates of the European Space Agency (ESA) Science Programme, focussing on the technology developments that are needed for enabling these missions. The schedule and programmatic requirements are recalled for each candidate mission, and the technology achievements and readiness status summarised. The candidate missions are all selected through open "Calls for Missions" that are regularly issued by ESA in the context of the Science Programme Cosmic Vision Plan. The candidate missions are then elaborated and prepared through definition studies and technology development activities covering the spacecraft and the science instrumentation, with the objective to reach TRL 5 before starting the implementation phase and confirm the mission feasibility within the Cost at Completion specified in the Call. The candidate missions are competing for given launch slot(s) and the missions are effectively adopted for implementation in the Programme through a down-selection process, where key selection criteria are the mission science return, definition maturity, technology readiness and compatibility with the programmatic constraints.