

**Potential Contributions of DLR to DEMOCRITOS INPPS Flagship: Robotics, Assembly, Test and Simulation of Electric Thrusters**

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The INPPS flagship (International Nuclear Power and Propulsion System) was designed in 2016 at the Concurrent Engineering Facility of the DLR Institute of Space Systems in Bremen.

The results of the INPPS system and subsystems will be explained. The high Earth in-orbit assembly strategy will be also sketched. In the focus of the talk are the potential contributions of DLR institutes and their facilities (in Bremen, Braunschweig, Göttingen and Oberpfaffenhofen) to test and simulate electric thrusters and the robotic assembly of INPPS. For a human and robotic space explorations the high mass payload modules (to EUROPA about 12 t and to MARS about 20 t) are very attractive opportunities for a large number of challenging scientific equipment with extraordinary high mass to these destinations.