

Panels (P)  
Planetary Protection Policy (PPP.1)

## **PPOSS - PLANETARY PROTECTION OF OUTER SOLAR SYSTEM EC H2020 PROJECT**

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The PPOSS (Planetary Protection of Outer Solar System bodies) project, coordinated by the European Science Foundation was selected by the European Commission in August 2015 following the Horizon 2020 call 'Space-Competitiveness of the European Space Sector-2015'.

In addition to the European Science Foundation, DLR, COSPAR, Imperial College London, EUROSPACE, INAF and Space Technology Ireland Ltd. are also part of the project consortium and PPOSS also has several international partners and observers.

PPOSS will run for three years (2016-2018) and has for main objectives to provide an international forum to consider and approach the specificity of Planetary Protection (biological and organic contamination) for outer Solar system bodies, including icy worlds and small bodies, in the general context of Planetary Protection regulation.

While significant effort has been, and is being provided to address planetary protection in the context of the exploration of inner Solar System bodies, and in particular Mars, PPOSS would allow to tackle the scientific, technological and policy-making specificity of Planetary Protection of outer solar system bodies. Project findings will be considered in the general context of the international planetary protection landscape and presented to COSPAR PPP.

Through workshops, seminars, consultation as well as desk based research and review of the

state of the art, the project partners intend to complete the six detailed objectives presented below:

-Objective 1: Delineate the state of the art, identify lessons to be learnt and good practices in PP Look at how Planetary Protection policy has been and is proposed, defined and implemented at the international level, identify good practices for valuable and efficient advice – Focus on aspects related to international cooperation. Provide guidelines, methods for PP advice.

-Objective 2: Identify scientific challenges, scientific requirements and knowledge gaps related to Planetary Protection of outer solar system bodies. In the context of the current and foreseeable programmatic landscape, the scientific requirements, the many challenges, critical knowledge/expertise as well as knowledge gaps raised by PP related to i) biological contamination of outer solar system bodies and ii) organic contamination of outer solar system bodies. Propose scientific goals, suggest activities to overcome the main hurdles and fill-in knowledge gaps.

-Objective 3: Develop an European engineering roadmap Based on the scientific requirements, the science white paper and the improvement of the competitiveness of the European Industry, identify critical technologies required to best address PP of outer solar system bodies, define their TRLs and suggest a roadmap covering the next 15-20 years.

-Objective 4: Linking with the society, ethics and risk perception of PP Put planetary protection contamination aspects in the wider context of societies their ethical framework and their perception of risk. Comparison with other similar regimes and cross comparison among different countries and regions will be performed.

-Objective 5: Review of the international PP regulation structure, process and categorisation related to outer solar system bodies, suggest improvements In the context of the findings and outcome from the project, as well as targeted consultation with stakeholder, review the PP regulation process and the current PP guidelines and categories related to of outer solar system bodies, and suggest improvements to COSPAR

-Objective 6: Dissemination of knowledge Facilitate the dissemination of knowledge related to Planetary Protection in general and of PP related outer solar system bodies, as well as of the outcome of the project to a wider international audience through seminars. Develop and maintain the project website and a repository for PP-related documentation.