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Title

European Flexible Heat Shields: Advanced TPS Design and Tests for Future In-Orbit Demonstration - 2

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Abstract

EFESTO-2 (European Flexible Heat Shields: Advanced TPS Design and Tests for Future In-Orbit Demonstration – 2) is a project funded by the EU program Horizon Europe and it aims at further increasing the European know-how in the field of Inflatable Heat Shields (IHS). It will lean on the great achievements obtained in the frame of the father project EFESTO (H2020 funds No 821801) by implementing the needed further development to improve the TRL.

The project pillars are: to consolidate the use-case applicability through a business case analysis for a meaningful space application; to extend the investigation spectrum of the father project EFESTO to other critical aspects of the IHS field; to increase the confidence-level and robustness of tools/models; to consolidate the roadmap and guarantee continuity in presiding the IHS field in Europe among the scientific and industrial community.

This paper presents the project objectives and plan, providing with a general overview of the activities ongoing and planned for the next two years, promoting its position in the frame of a European re-entry technology roadmap.

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Key words

Inflatable Heat Shields, Re-entry, Reusability, Reusable launchers