SPACE SYSTEMS SYMPOSIUM (D1) System Engineering Tools, Processes & Training (3)

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ASI CEF: A NEW CONCURRENT FACILITY HAS BORN

Abstract

Concurrent engineering methodology applied to space projects is now being appreciated by agencies and industrial companies. under the strong impulse provided by the European Space Agency. The spreading of a common concurrent approach is not only going to improve the design activities within the boundary of a single actor, but can also enhance the interactions between enterprises and their institutional customers, optimising the information flow.

The present paper address the new ASI Concurrent Engineering Facility (CEF), now operative in the Italian Space Agency (ASI) premises of Rome, its capabilities and the new steps in the build up of an interdisciplinary team with the aim of supporting ASI in developing both its own conceptual or feasibilities studies as well as joint activities between the Agency and it's partners.

The facility, implemented in Rome in March 2008, is a result of a collaboration between the Italian Space Agency and Thales Alenia Space, who integrated the engineering models within a common design environment based on the European standard enforced by ESA-CDF under ECSS working group and on the ESA Integrated Design Model.

The paper will illustrate how the facility also interconnect the technical design data to the correspondent economical parameters using web application and database technologies integrated within the Technical and Economic DataBase (DBTE).

ASI CEF, adopting the keywords of a successful concurrent design facility (i.e. the model, the process, the team group and the facility), aim to demonstrate how to capitalize the corporate knowledge for future re-use and for project comparisons over historical data. A data standard allows European space enterprises, universities and research centres to speak and understand each other with the same language while storing performed studied to increase the shared knowledge.

The collaboration between enterprise and agency signs a further step in the creation of a new European geographical distributed design network.