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Author: Dr. Marco Guglielmi
European Space Agency (ESA), The Netherlands

THE EUROPEAN SPACE TECHNOLOGY REQUIREMENTS DATABASE (ESTER)

Abstract

The European Space Technology Requirements database (ESTER), provides a comprehensive view at European level of the envisaged space missions and the associated technology requirements, including also technology push. All European Space Agency (ESA) Directorates involved in technology activities, ESA applications programmes, National Delegations, all major European Industries and other interested parties, actively contribute to the content of the database.

ESTER is also a starting point and key element in support of the technology harmonisation and the end-to-end technology management processes developed by ESA, which goes from the collection of the Technology Requirements, to the implementation, monitoring and evaluation of the actual technology Research Development activities.

The first version of the database, then called Dossier-0, was issued in 1999 and was broadly circulated among Industry and National delegations. To further improve the accessibility to the data in ESTER, and to facilitate the updating process, in 2002 the data was migrated to an electronic database accessible on-line to registered users at http://harmostrat.esa.int . Since 2002, the database has been updated on a regular basis. The database has been considerably expanded and improved in the following years, and its name has been changed to ESTER.

The objective of this paper is to briefly review the evolution of the database itself from the initial requirements to the current architecture. The format and type of data currently stored will be reviewed together with their evolution in time.

Finally, the use of the database in support to the current end-to-end harmonisation and technology management processes will also be discussed.