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# Concurrent Engineering at DLR

## Abstract

## CONCURRENT ENGINEERING AT DLR

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### Abstract:

SPACECRAFT DESIGN is an iterative process which generally needs much time, cost and effort due to the complexity of subsystem interaction and the challenging conditions in space.

To ensure highest efficiency for system and mission design regarding quality, time and cost, in 2009 the DLR-Institute of Space Systems in Bremen, Germany, completed the build up of its *Concurrent Engineering Facility* (CEF). The installation contains 20 work stations for specialists of several disciplines and additional positions for customers, visitors and experts. The implementation of modern tools and communication technologies allows running the engineering and design processes efficiently. Up to now the Concurrent Engineering process is still based on the Integrated Design Model (IDM) used at ESA ESTEC's *Concurrent Design Facility* (CDF) where ten years of experience in this kind of systems engineering is concentrated. Presently the process as well as the corresponding software is extended and adapted to the special conditions of DLR. The present paper gives an insight in dynamic and interesting work within the CEF and the further development of this high modern Systems Engineering and Analysis Laboratory of the new DLR institute in Bremen. Furthermore, recently performed and future intended studies will be described with respect to the benefits of the applied concurrent engineering approach and its environment, i.e. facility, soft- and hardware.

