

SPACE SYSTEMS SYMPOSIUM (D1)
System Engineering Tools, Processes and Training (1) (3)

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PROJECT MANAGEMENT & DEVELOPMENT ENGINEERING - ACCESSIBLE TO PROCESS
MANAGEMENT AND LEAN THINKING?

Abstract

Aside from being compliant with customer standards like ECSS, most space companies are certified to the aerospace industry standard EN 9100, and some have even gone through an appraisal following the CMMI standard.

An EN 9100 certification requires compliance of all operational activities of a company to standard processes. The norm has undergone a major transition from process description and error avoidance to requiring "management by processes" and continuous improvement, e.g. through PDCA (Plan-Do-Check-Adjust) cycles across all levels of the company.

The CMMI model requires the application of "best practices" originally developed for software development, but now applied also to hardware and system development.

From non-aerospace industry, mainly production industry, LEAN thinking gets increasingly pushed by line managers to foster efficient project management, engineering, and production.

Projects are therefore more and more often exposed to internal and external audits, improvement initiatives, and compliance checks which seemingly contradict the pressure to work efficiently and remain focused on project and customer needs.

The paper discusses the challenges and the potential benefits these generic norms offer to projects. It reports on the approach ASTRIUM Space Transportation has taken to adopt the above references, and the experiences made so far, presenting concrete examples. They address the company wide "Business Management System", the new process maturity evaluation, process governance improvements, and LEAN pilot projects.