



PONENCIA:

## **LA IMPORTANCIA DE LA GESTIÓN DE LA CONFIGURACIÓN EN UN PROYECTO**

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**Dr. Juan Carlos Redondo Expósito, PMP®**  
CASSIDIAN Sp Configuration & Change manager  
Eurofighter & UAVs Programmes

# INDEX

- CM IN A PROJECT: EADS VIEW
- CM: OBJECTIVES AND PRINCIPLES
- E2E PROCESS
- CM TOOL
- CONCLUSIONS

# CM IN A PROJECT: EADS VIEW

- **Configuration Management** is a discipline popularized by its use in the acquisition of Aerospace and Defence systems.
- When **Configuration Management** principles are applied using effective practices, return on investment is maximized and **Product Life Cycle** costs are reduced.
- Configuration Management has been recognized by **EADS Corporate Technical Office** as crucial for EADS core business and Extended Enterprise. Consequently and as part of its ongoing commitment to improve processes and quality within EADS, EADS is adopting this Policy for Configuration Management.
- This policy will help to clarify and enhance current practices to improve program management. It is intended to be used by all EADS Programs when establishing, performing or evaluating **Configuration Management** processes in Divisions and Business Units.

# CONFIGURATION MANAGEMENT: OBJECTIVES AND PRINCIPLES

## OBJECTIVES

- a) The main objective of configuration management is to identify and document the functional and physical characteristics of a product, to control changes to those characteristics, to record and report change processing and implementation, and to verify compliance with contractual and legal requirements.
- b) Configuration Management must also enable all parties involved in the program, at any given time in the life cycle, to use identical data in the same controlled status.
- c) Configuration Management applies appropriate processes and tools to establish and maintain consistency between the product and its requirements and characteristics. A disciplined CM process ensures that a product conforms to its requirements and is identified and documented in sufficient detail to support the product life cycle.
- d) CM assures accurate product configuration information and enables product interchangeability, safe product operation and maintenance to be

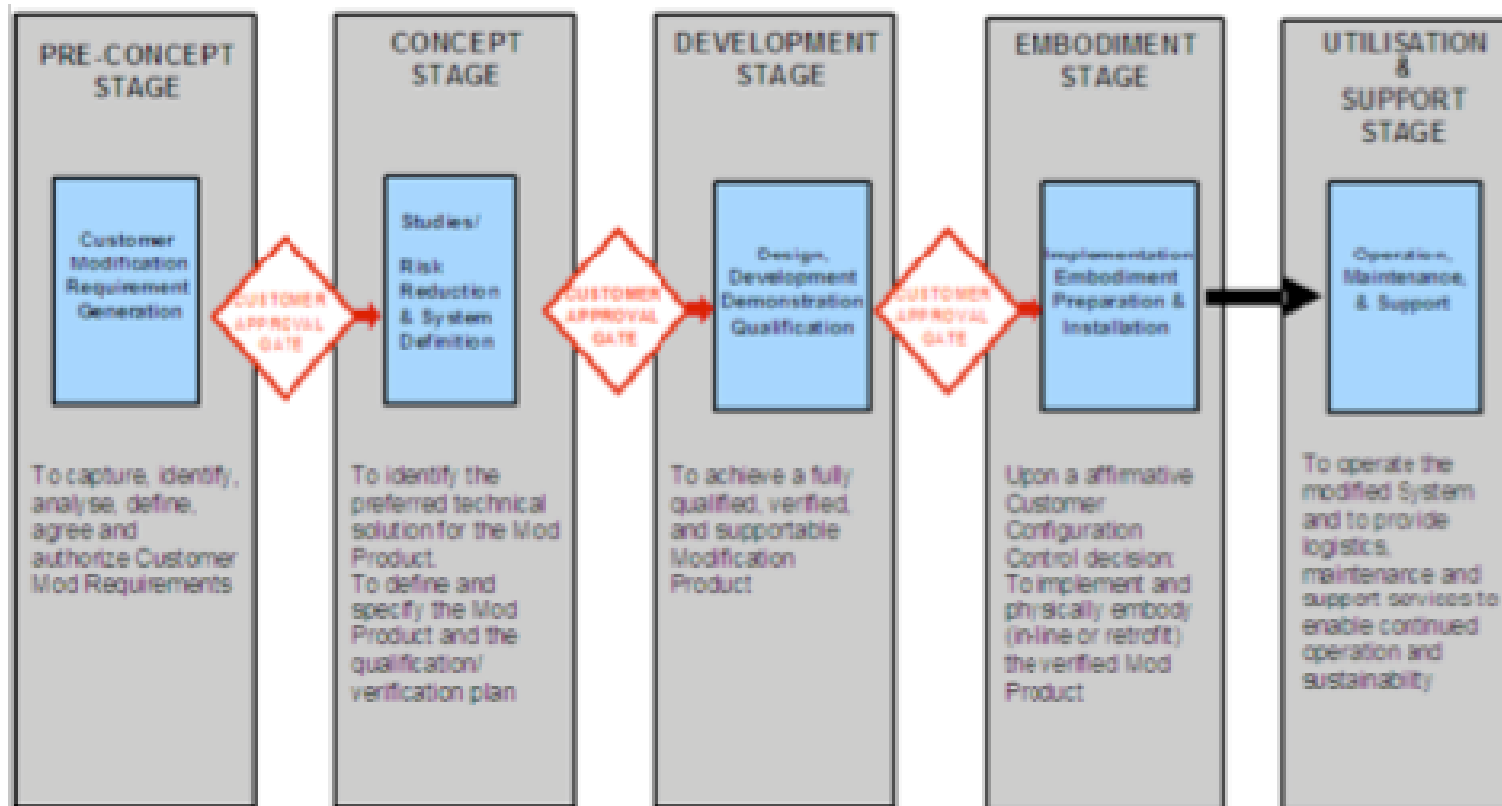
# CONFIGURATION MANAGEMENT: OBJECTIVES AND PRINCIPLES

## PRINCIPLES

- The Configuration Management process comprises five functions that together provide a consistent and flexible implementation structure.
- Any EADS entity having design responsibility and/or manufacturing/integration responsibility establishes and operates a **configuration management system** with procedures to perform these 5 functions:
  - **CM Planning and Management:** to define and organize configuration management activities in the program context over the product life cycle.
  - **Configuration Identification:** to identify items to be placed under their formal configuration control (Configuration Items - CI), and identify the requirements and the functional and physical characteristics of those items by means of approved technical documents, such as specifications, functional diagrams, drawings, parts lists, procedures, plans, interfaces documents, etc...,
  - **Configuration Control:** to control and document changes to those characteristics, and operate an effective Configuration Control Board (CCB),
  - **Configuration Status Accounting:** to record and report configuration status of each CI for which they are responsible,
  - **Configuration Verification and Audit:** to verify achievement of required characteristics in the manufactured product as set forth in its technical documentation, and monitor configuration data received from the customers and lower tier subcontractors.

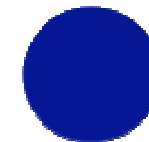
# E2E (End to End) PROCESS

- Changes/Modifications are alterations of the existing functional and/or physical characteristics of the design standard. The Change/Modification life cycle comprises of 5 Stages:



# CM TOOL

- Gestión de la Configuración ***as-designed*** en fase de diseño
- Gestión de la Configuración ***as-planned*** para productos que deben de ser fabricados
- Gestión de la configuración ***as-built*** como resultado real de la fabricación o montaje final, elaboración de documentación y captura de datos de entrega asociados.
- Gestión de la configuración ***as-delivered*** de los productos a entregar a nuestro cliente.



# CONCLUSIONS

- **KEY DATA:** ACCORDING TO THE LATEST STATISTICS, 57% OF PROJECTS FAIL BECAUSE OF MISCOMMUNICATION OR BAD COMMUNICATIONS.

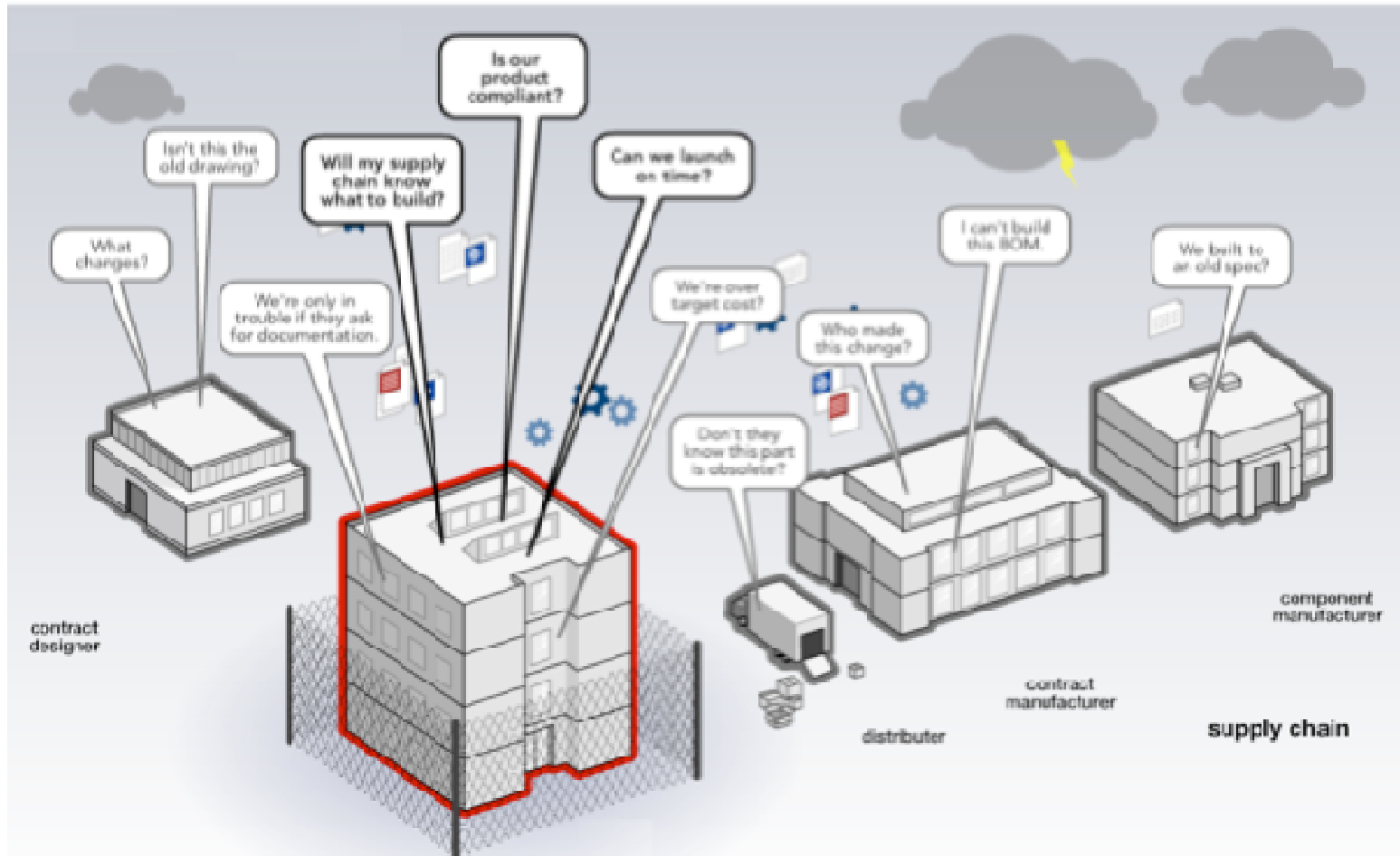
COMMUNICATIONS IS PARAMOUNT TO THE SUCCESS OF A PROJECT.

- CONFIGURATION MANAGEMENT IS A SET OF TOOLS AND TECHNIQUES THAT ENABLE BETTER CHANGE CONTROL FOR PROJECT DOCUMENTS.
- BY TRACKING CONFIGURATION MANAGEMENT METRICS (KPIs), A PROJECT MANAGER CAN IDENTIFY PROGRESS AND BALANCE THE TRIANGLE: COST, SCHEDULE AND QUALITY.
- CM IS THE BASIS OF PROJECT COMMUNICATION AND CONTROLLING CHANGES THAT AFFECT THE PROJECT, SUCH AS REQUIREMENTS OR DESIGN CHANGE.
- CONFIGURATION MANAGEMENT, THROUGH CCBs (CHANGE CONTROL BOARDs), ENSURES AWARENESS OF THE PROJECT'S HEALTH.
- A KEY TO CHANGE MANAGEMENT IS THAT THERE IS NO PRESCRIBED WAY TO MANAGE THE CHANGE PROCESS. THE KEY IS TO BUILD A PROCESS BUT BE READY TO ADAPT AS CIRCUMSTANCES DICTATE.

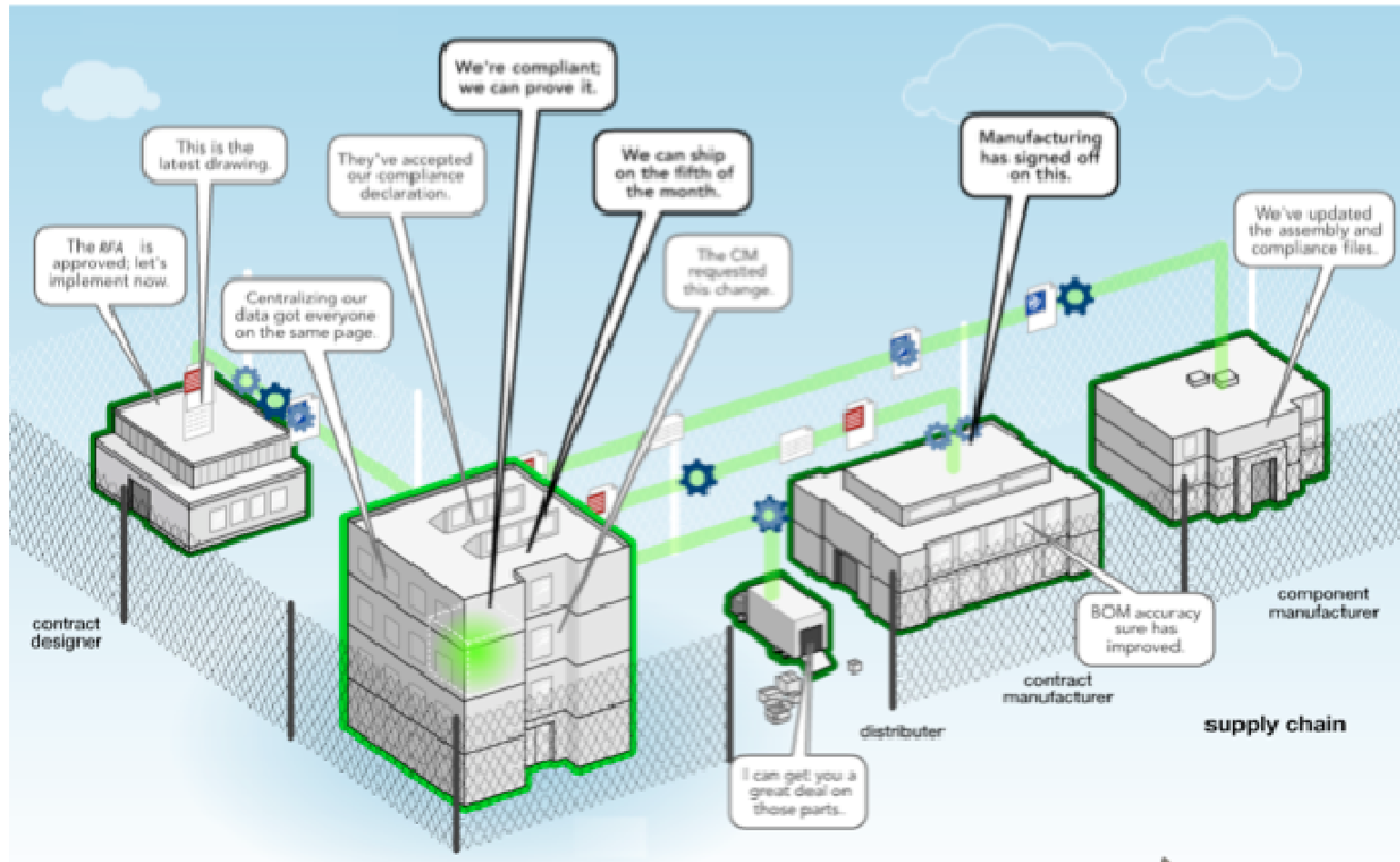
- MOST CM ACTIVITIES CAN BE PERFORMED ELECTRONICALLY. SEVERAL SW TOOLS ON THE MARKET



# “WITHOUT” CONFIGURATION MANAGEMENT



# “WITH” CONFIGURATION MANAGEMENT



# REFERENCE DOCUMENTS

- ECSS M40 ECSS Standard for Configuration Management.
- EN 9200 Aerospace series – Guidelines for project management specification (clause 9 – Configuration Management).
- ISO 10007 Guidelines for Configuration management.
- ANSI/EIA 649 Configuration Management.
- EN 9100 Quality Management System requirements.
- AQAP 2110 NATO Quality Assurance Requirements for Design, Development & Production.
- AQAP 2210 NATO supplementary Software Quality Assurance requirements.

ANY QUESTION?

