

Developing a global Configuration Management function at Tetra Pak®



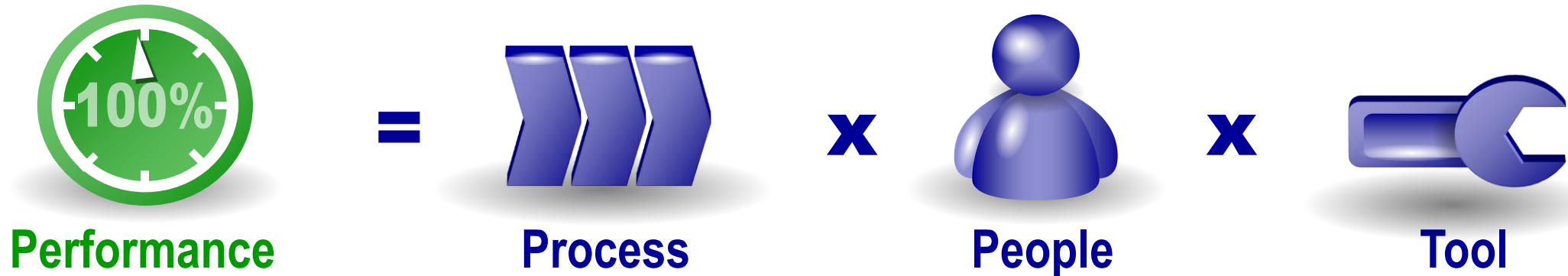


*“Envisioning standardized baselines,
a global common top-level product structure
and a clarifying definition of product ownership”*



Business Transformation Process

For introducing the new engineering capability “Configuration Management”



Business Transformation is about achieving a step change in performance



The Product Creation key Elements

Tightly integrated

Project Governance

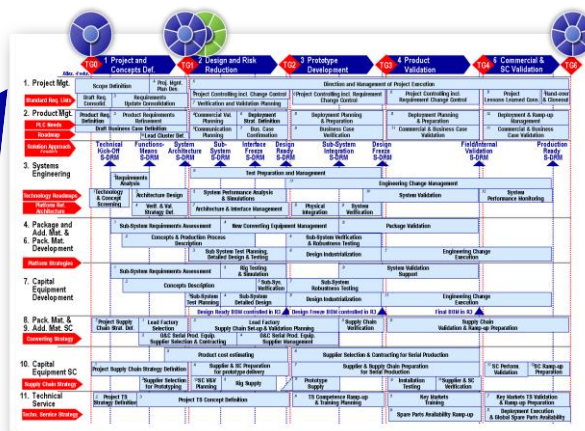
PTR Chair – VP Platform / Moderator: Director Project Management										
Product Group Dir.	Director Sys. Eng.	Dir. Pack. & Dist. Sol.	Converting Manager*	Director Equip. Lines	Director Pack. Mat.*	Director Add. Mat.*	Director CE Suppl. Man.*	Director CE Platform*	Director Service Ops.	Director Bus. Control

*: Depending on Project, minimum one SC area always represented

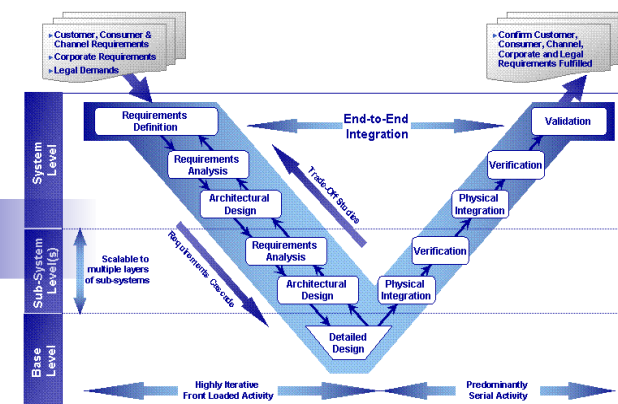
Core Team



Workflow



Systems Engineering

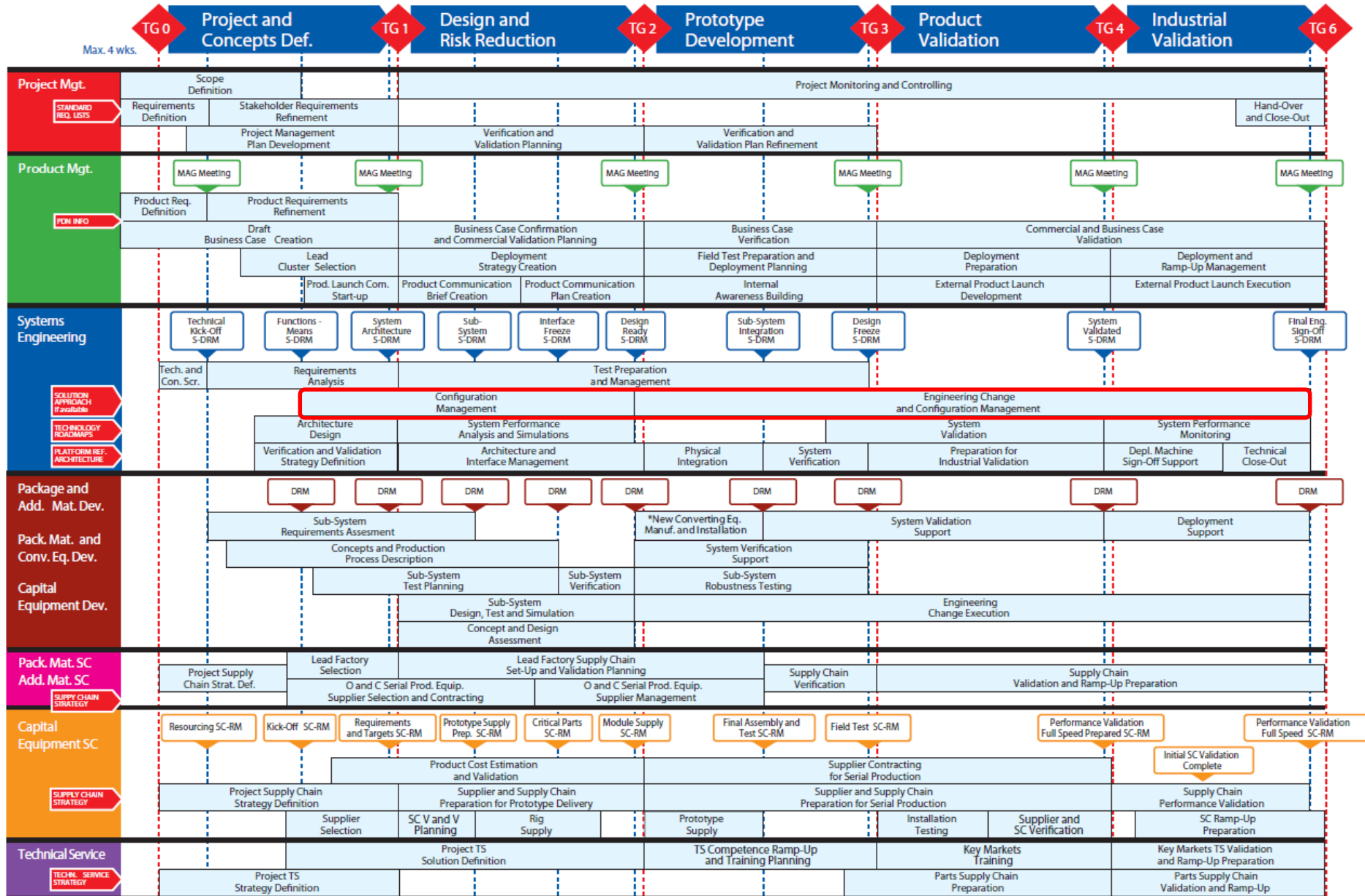


Project Line Operating Model

Product Development Work flow



Core Team & Line Organization



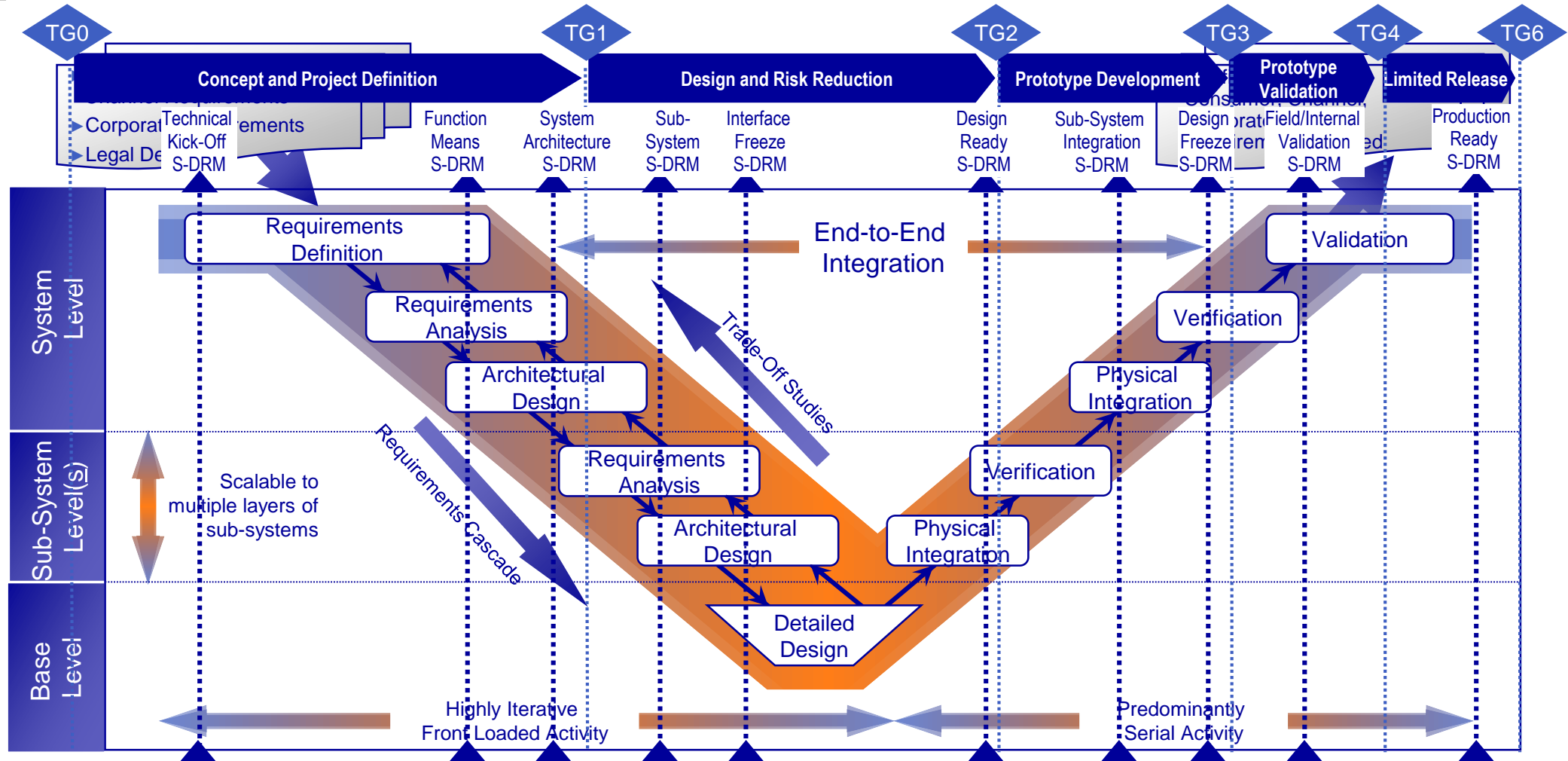
* Only applicable on Pack. Mat. and Conv. Eq.



Systems Engineering

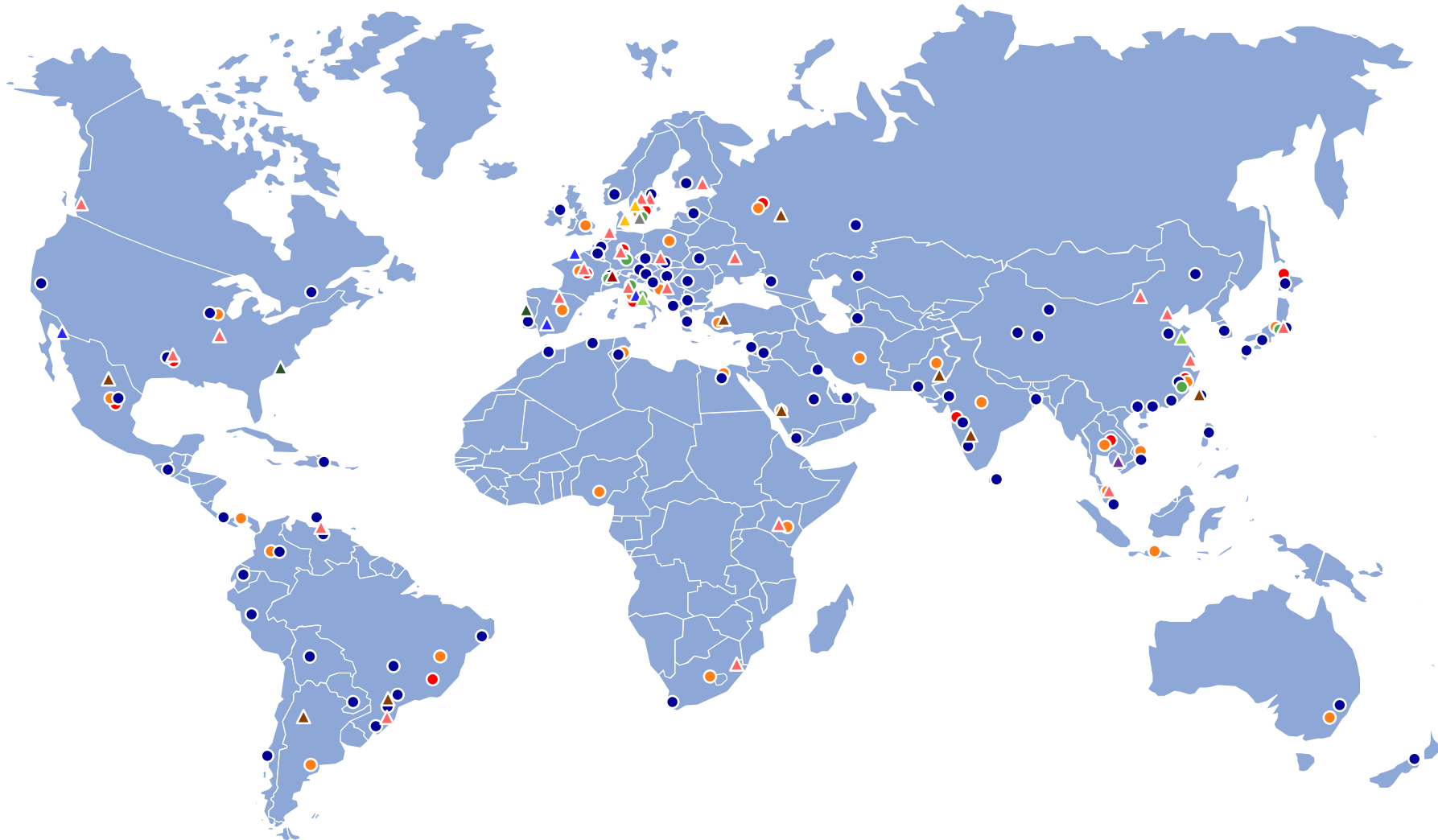
A maturing capability group asking for more structured configuration management

The V-Model





Present in more than 170 countries and operations in all continents





Total world deliveries 2015

Carton packaging material, billions of packs

184



Distribution machines

1,047



Packaging machines

411



Processing units

2,118





Popular consumer packaging

184 billion Tetra Pak[®] packages sold in 2015





Configuration Management at Tetra Pak®

- ▶ Main gaps defined
- ▶ The CM project vision
- ▶ The CM Project strategy
- ▶ The CM Project challenges





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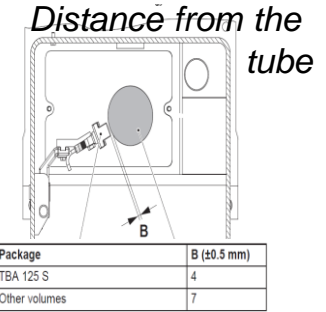
Gap 1: Product information traceability



Why was the product developed, which were the user needs?



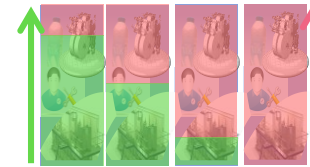
Under which conditions can we guarantee that the product functions as specified?



How do we repeat the exact same test if needed?



Exactly which design was approved at a specific S-DRM five years ago & what was the rationale?



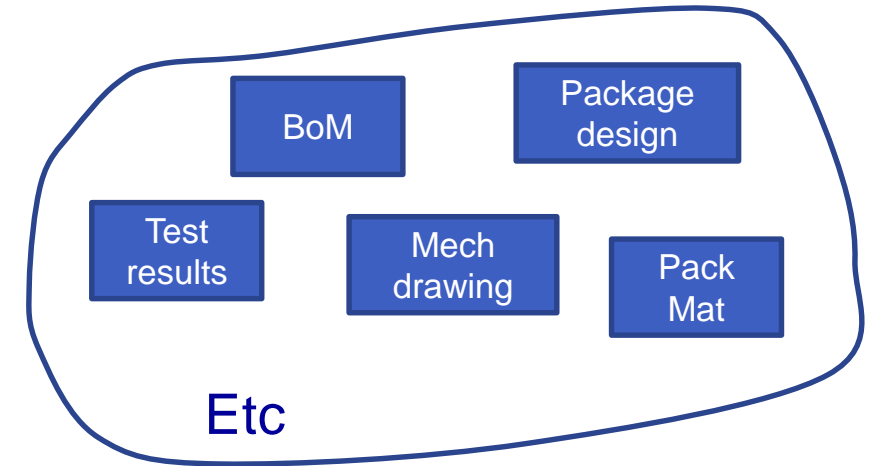
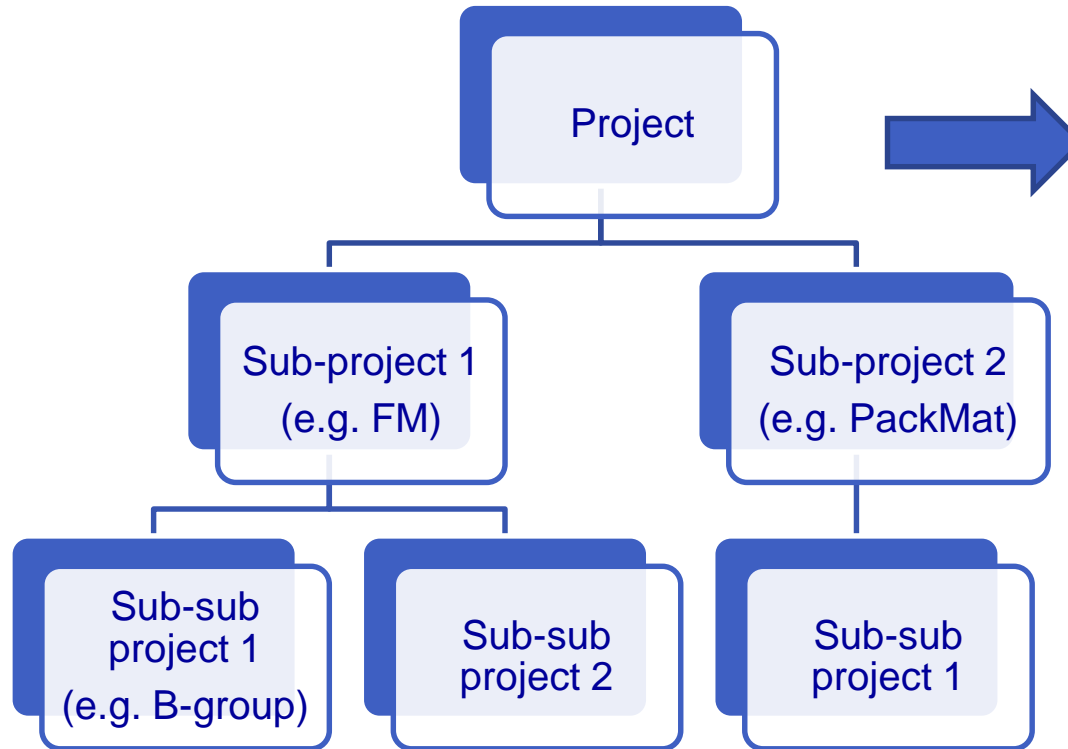
How much of the product configuration was changed in a specific PD project and why?

Objective: For each product we can find *documented answers* for these types of questions (ALSO AFTER 5 YEARS)



Gap 2: Project over product

Basis for **decisions** and knowledge **documentation**

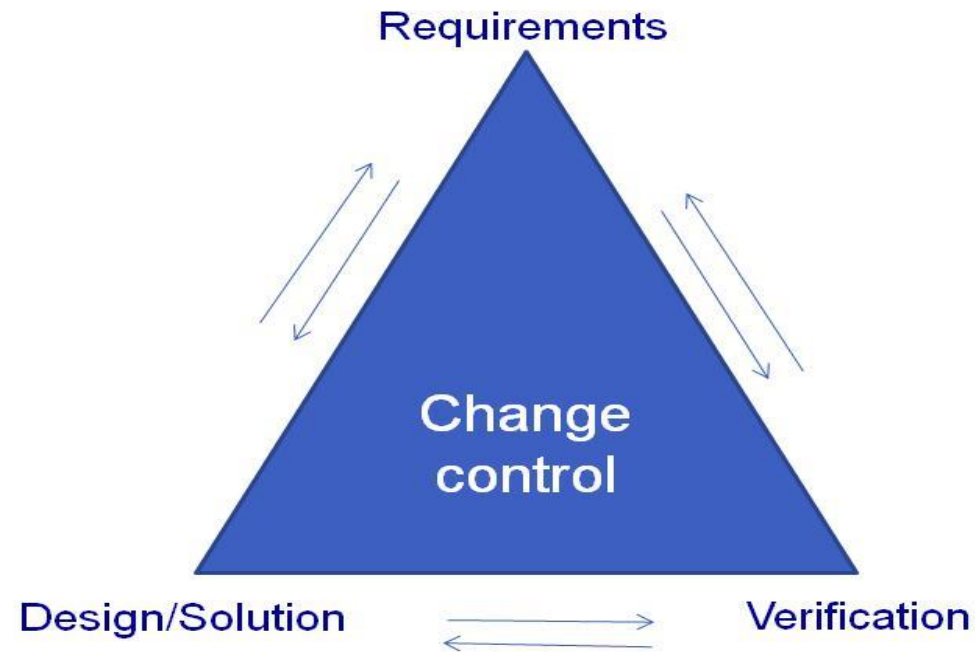


Not searchable on product level and not linked.

Plenty of hand-over without proper information



Gap 3: Interface & Change control in PD projects



Objective: Process to ensure link between requirements, design and tests for the complete product



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Scope definition

Configuration Management

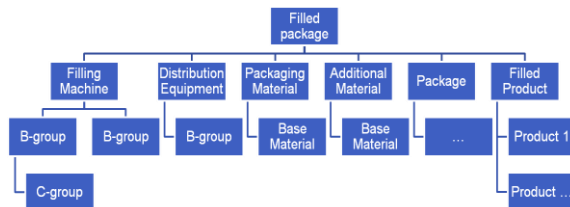
Develop the product breakdown structure in PDMLink required for configuration control

Develop the CM process for baseline creation & change control

Define the roles required for this process

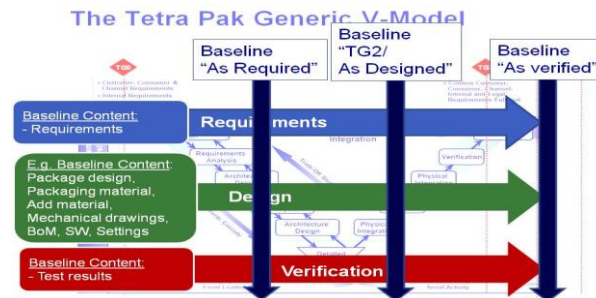
TO-BE 1

Product structure with relevant information in PDMLink



TO-BE 2

Process to create and control formal baselines in PDMLink



TO-BE 3

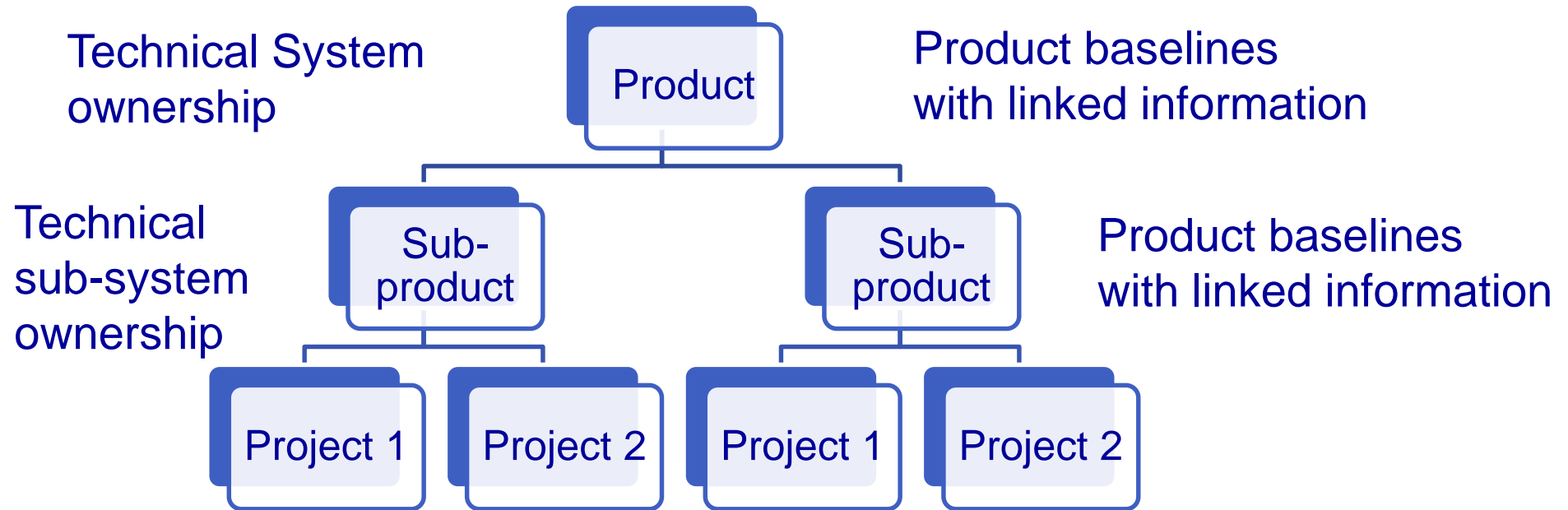
Roles to create and control formal baselines are described





To-Be: Product structure

Technical Ownership, Decisions & Documentation structure

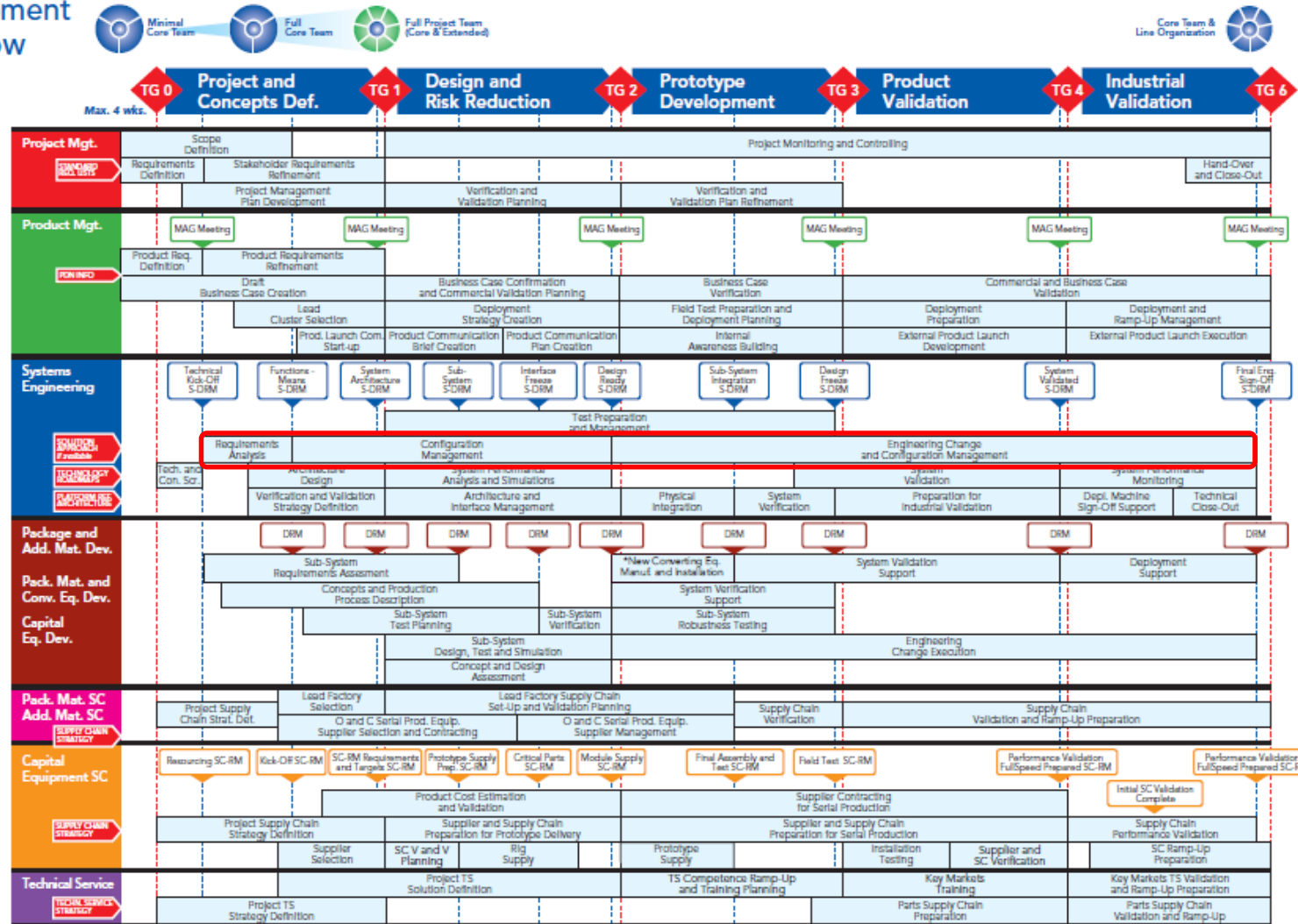




High-level Configuration management process (workflow) designed

Product Development Work flow

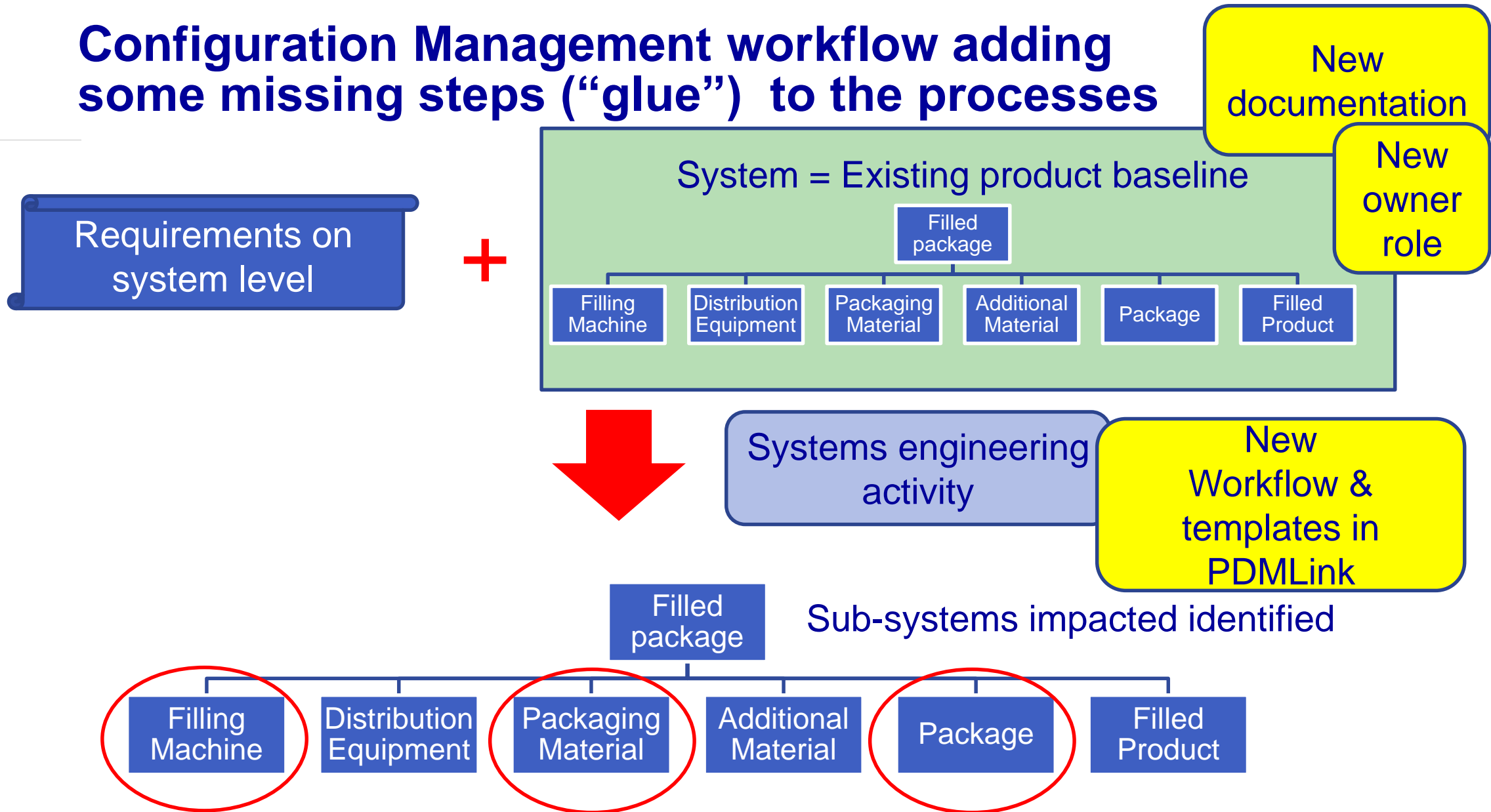
L40812 2013-04-10
Tetra Pak Internal



* Only applicable on Pack. Mat. and Conv. Eq.



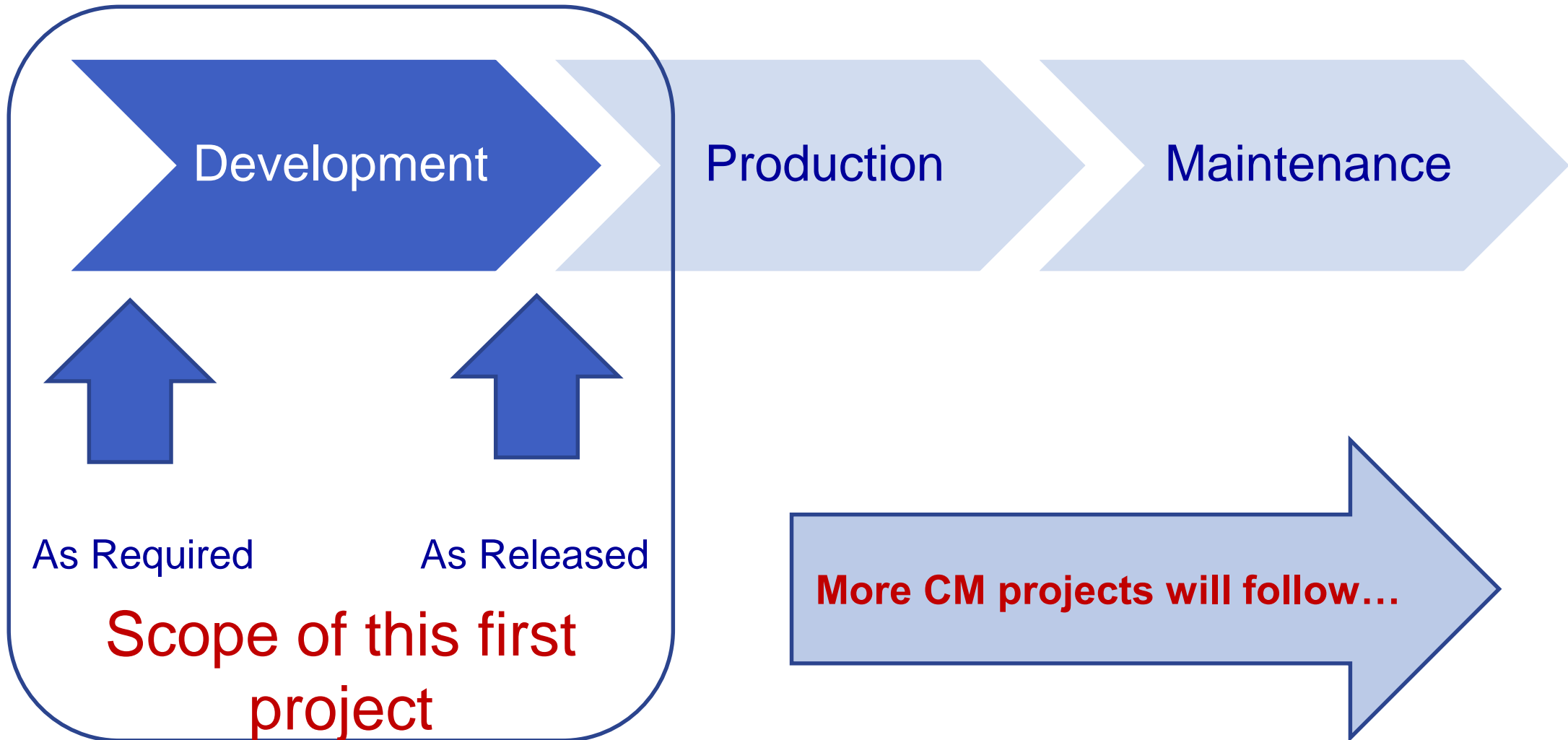
Configuration Management workflow adding some missing steps (“glue”) to the processes





Draft Mandatory Baselines with information content

To ensure quality, interface checks and traceability





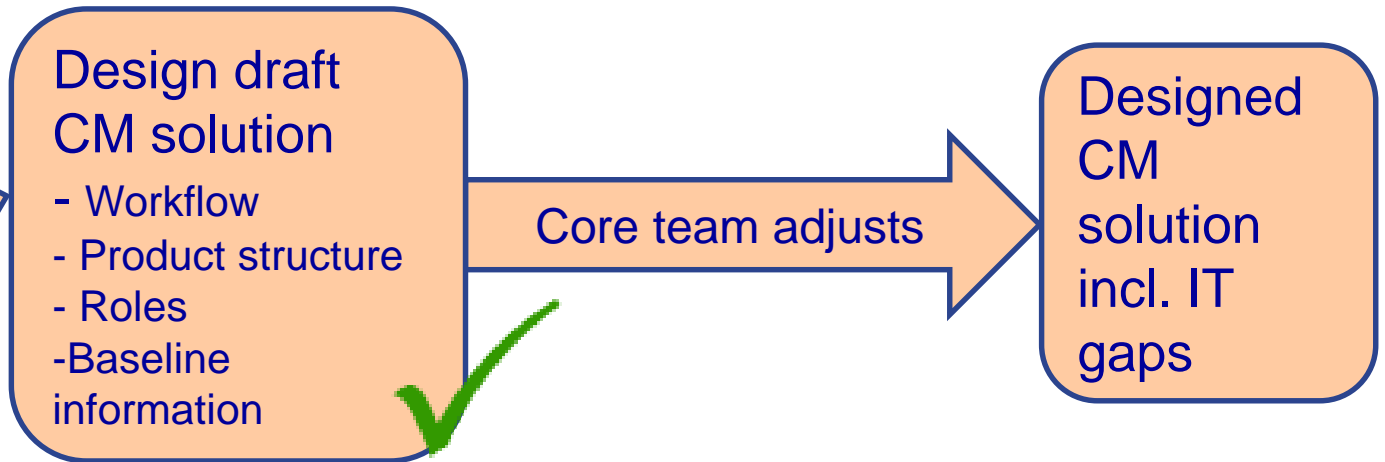
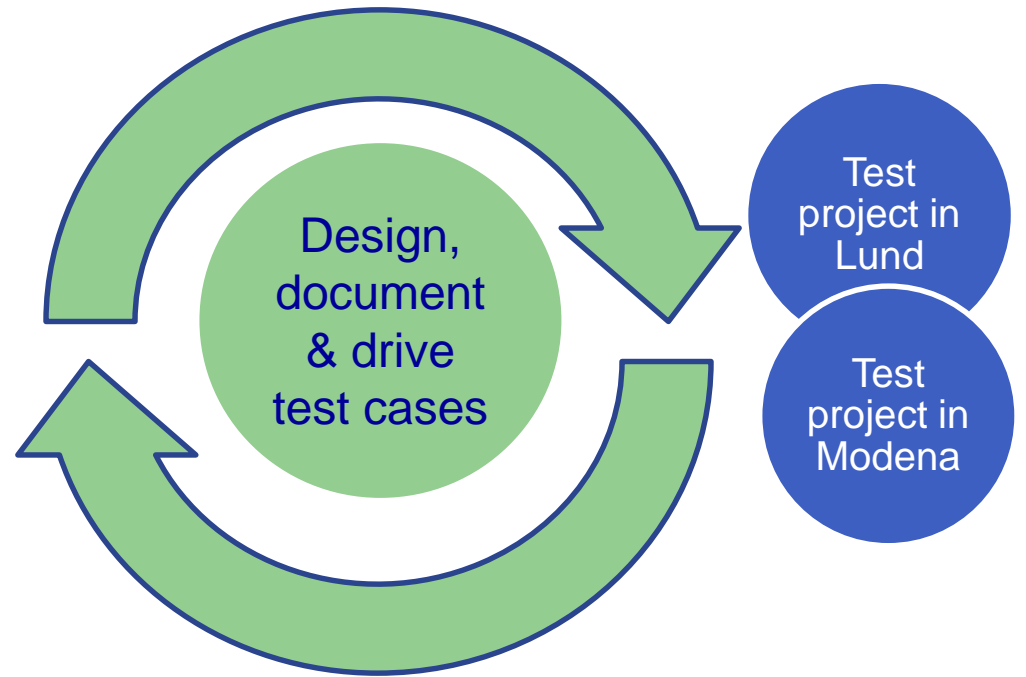
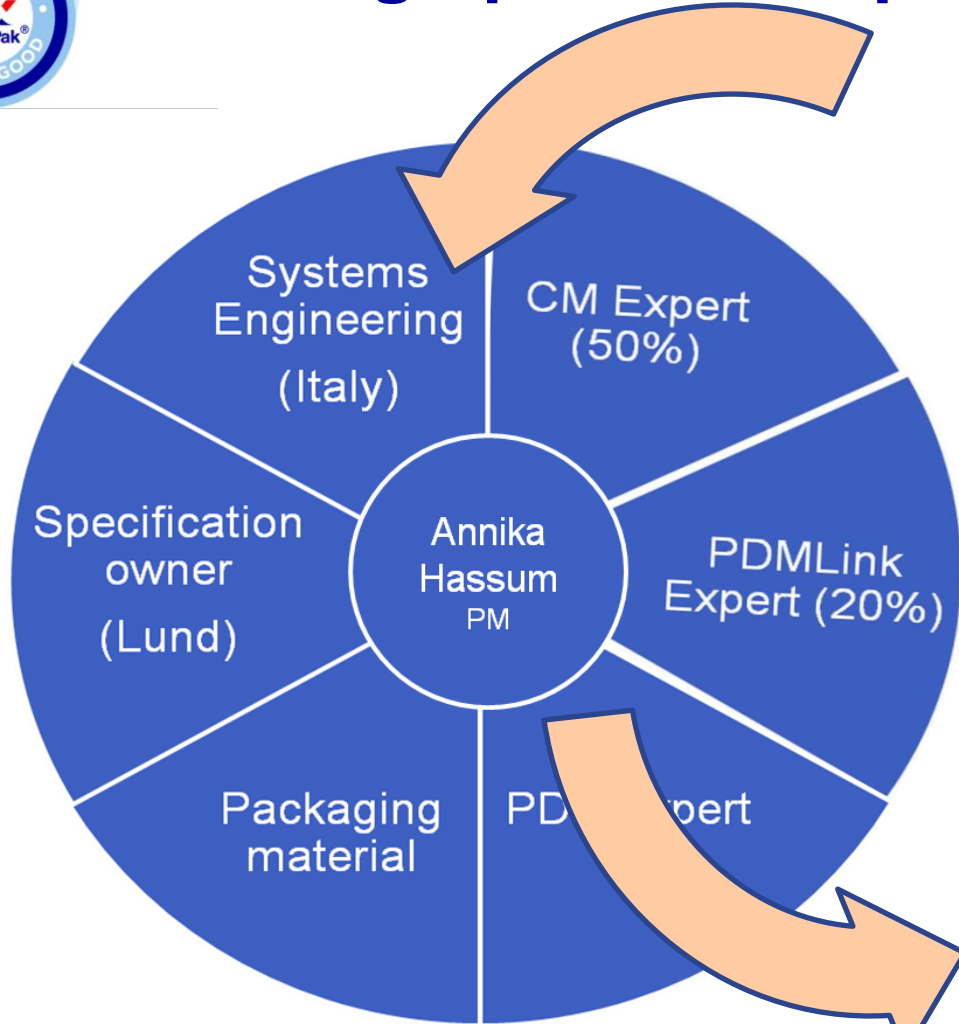
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Design phase setup





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The main Challenges



Scrum

Speed

Culture

Present in more than 170 countries and operations in all continents

- 80 sales offices
- 32 market companies
- 6 R&D units
- 11 Technical Training Centres
- 48 manufacturing sites

Popular consumer packaging

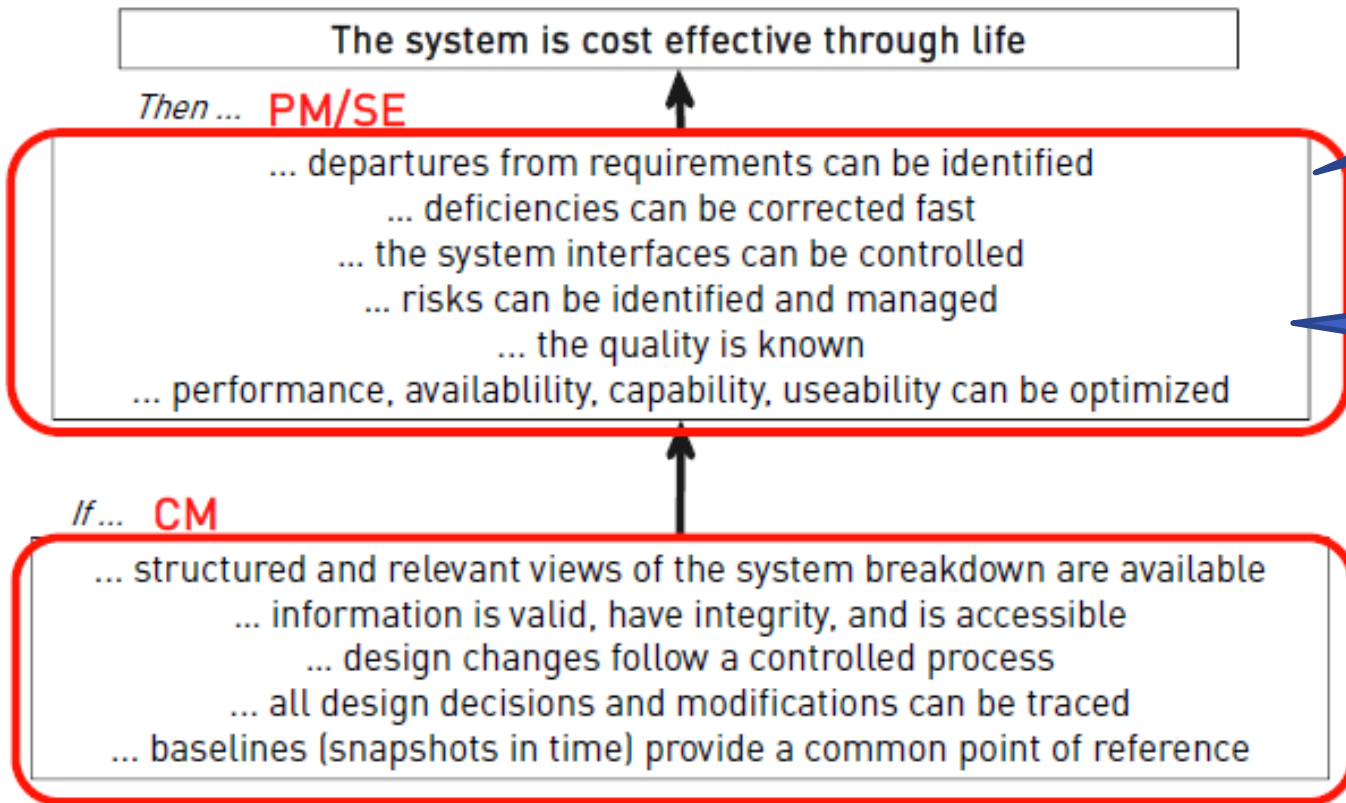
184 billion Tetra Pak® packages sold in 2015

Complexity



AND The Business Case to be prioritised...

What CM contributes with?



Real examples we can use?

Costs we can avoid with CM?

