CM FORUM

2026-03-18

Agenda

- 09.30 Introduction to CM Forum and the theme
- 09.45 Host presentation
  - Volvo Cars
- 10.30 Challenge introduction and coffee
- 11.15 Group discussions in Open Space
- 12.00 **Lunch**
- 13.00 Continued discussions in groups
- 15.00 Groups reconvene and present conclusions
- 16.00 Final thoughts and steps ahead
- 16.30 **End**
- 17.30 Optional dinner at O'Learys central station

Practicalities

- Safety
- Restrooms
- Coffee
- Lunch 12-13 at Harvest by Mannerström (own tab)
- End 16:30

Take a break and enjoy!

CM Forum – a network for CM operatives and strategists

REGULAR FORUM EVENTS

ACTIVE PARTICIPATION

DOCUMENTED RESULTS

ABB
KOCKUMS
SWEDISH STANDARDS INSTITUTE
SEB
SYLOG
MYCRONIC
ALSTOM
VATTENFALL
Westinghouse
eurostep
Trafikförvaltningen
STOCKHOLMS LÄNS LANDSTING
SAAB
Solvina
KTH
Tetra Pak
LUNDS UNIVERSITET
Nordea
ERICSSON
BAE SYSTEMS
Swedbank
FMV
SCANIA
VOLVO
H&M
NORWEGIAN ARMED FORCES
PENSIONS MYNDIGHETEN

What is CM?

ISO10007:

SVENSK STANDARD
SS-ISO 10007:2017

Fastställd/Approved: 2017-10-18
Publicerad/Published: 2017-10-25
Utgåva/Edition: 2
Språk/Language: engelska/English
ICS: 03.

Ledn
konfi

Quali
mana

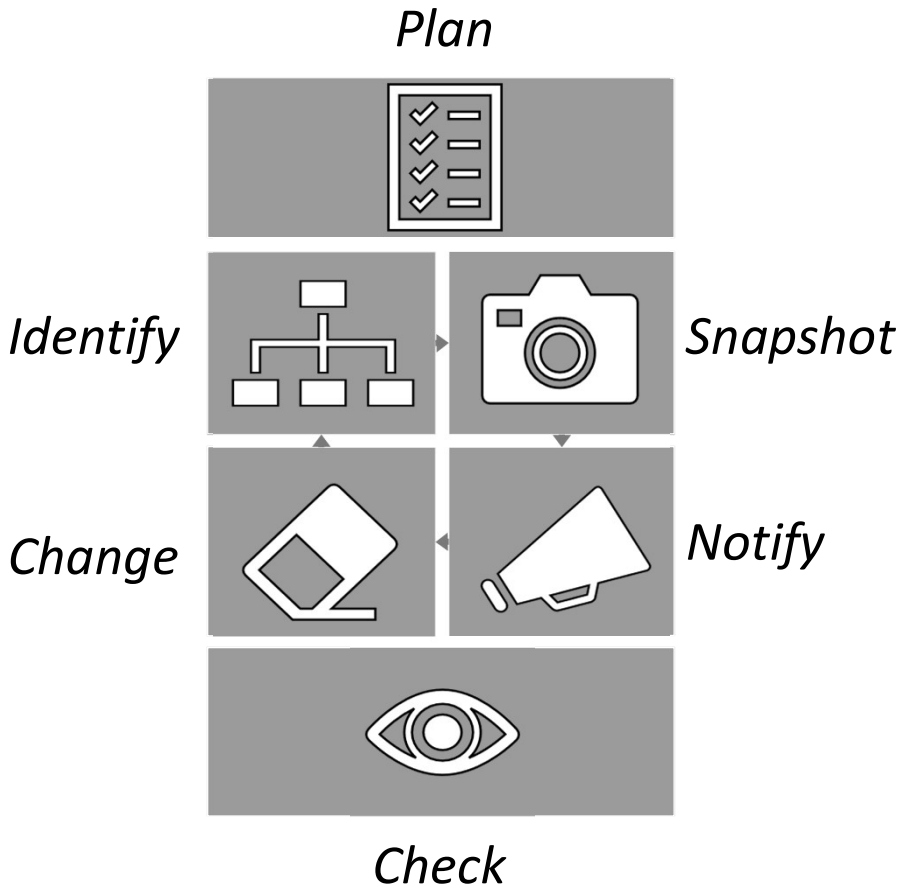
Configuration management is a management activity that applies technical and administrative direction over the life cycle of a product and service, its configuration identification and status, and related product and service configuration information.

Configuration management documents the product or service configuration. It provides identification and traceability, the status of achievement of its physical and functional requirements, and access to accurate information in all phases of the life cycle.

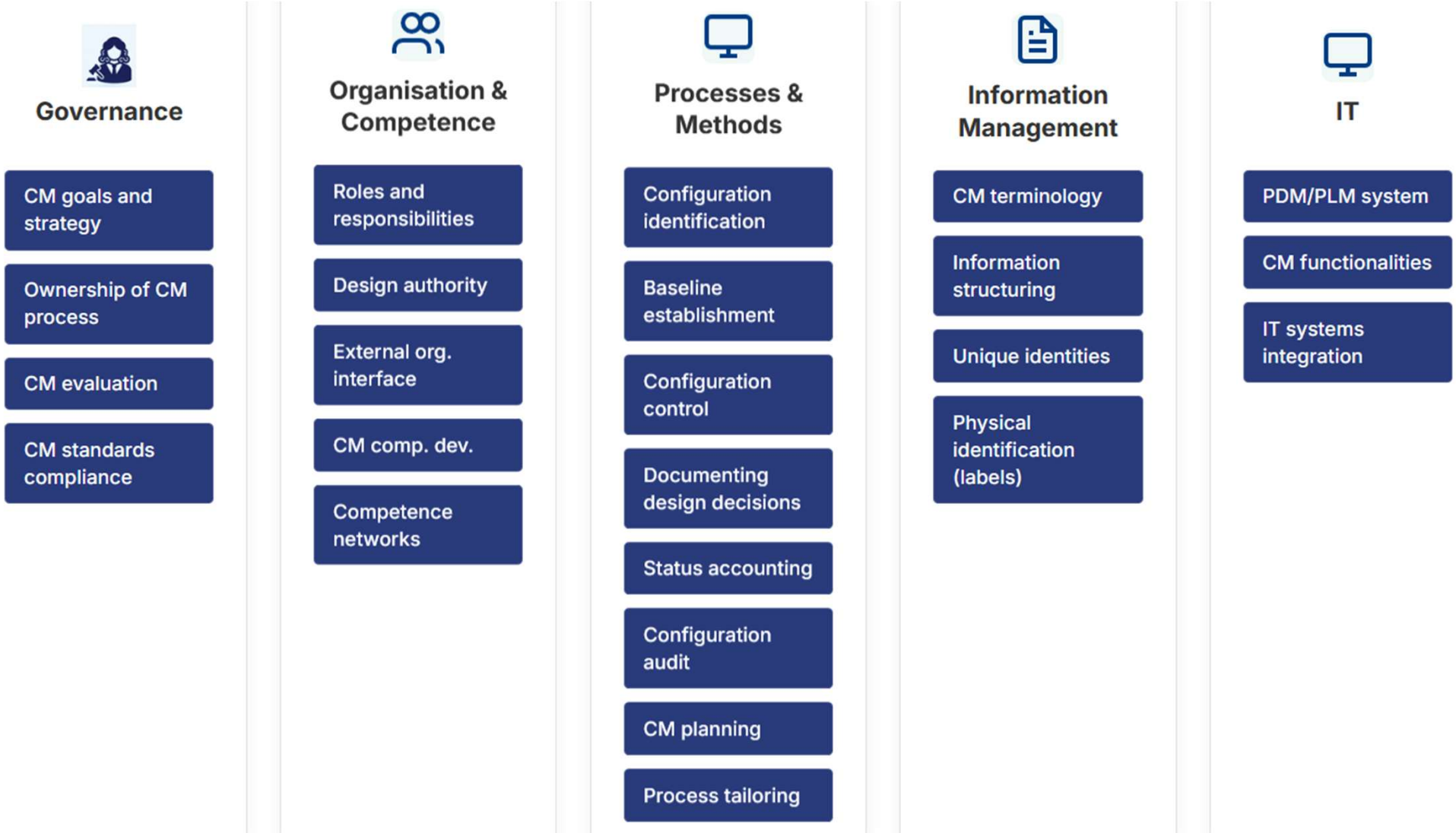
Configuration management can be implemented based on the size of the organization and the complexity and nature of the product or service and reflects the needs of specific lifecycle phases.

Configuration management can be used to meet the product and service identification and traceability requirements specified in ISO 9001:2015, 8.5.2.

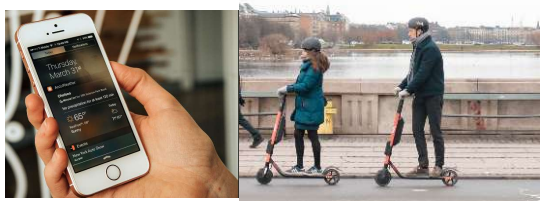
ISO10007 describes CM as a set of integrated activities In a nutshell:

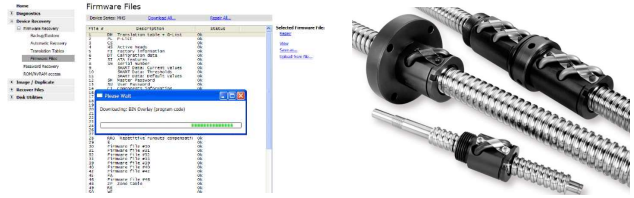


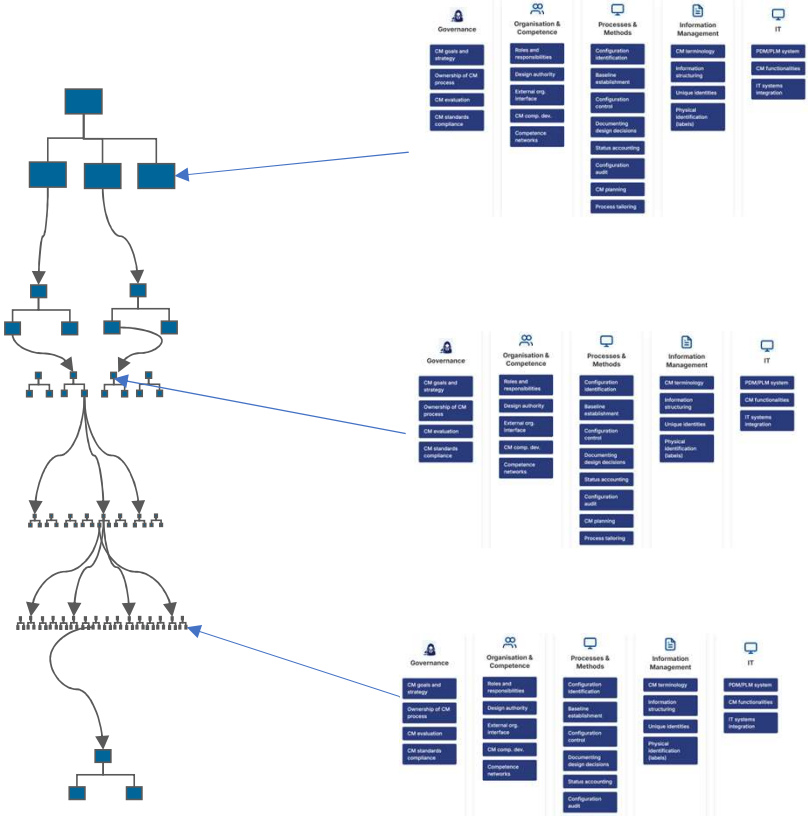
CM needs to be regarded as a capability



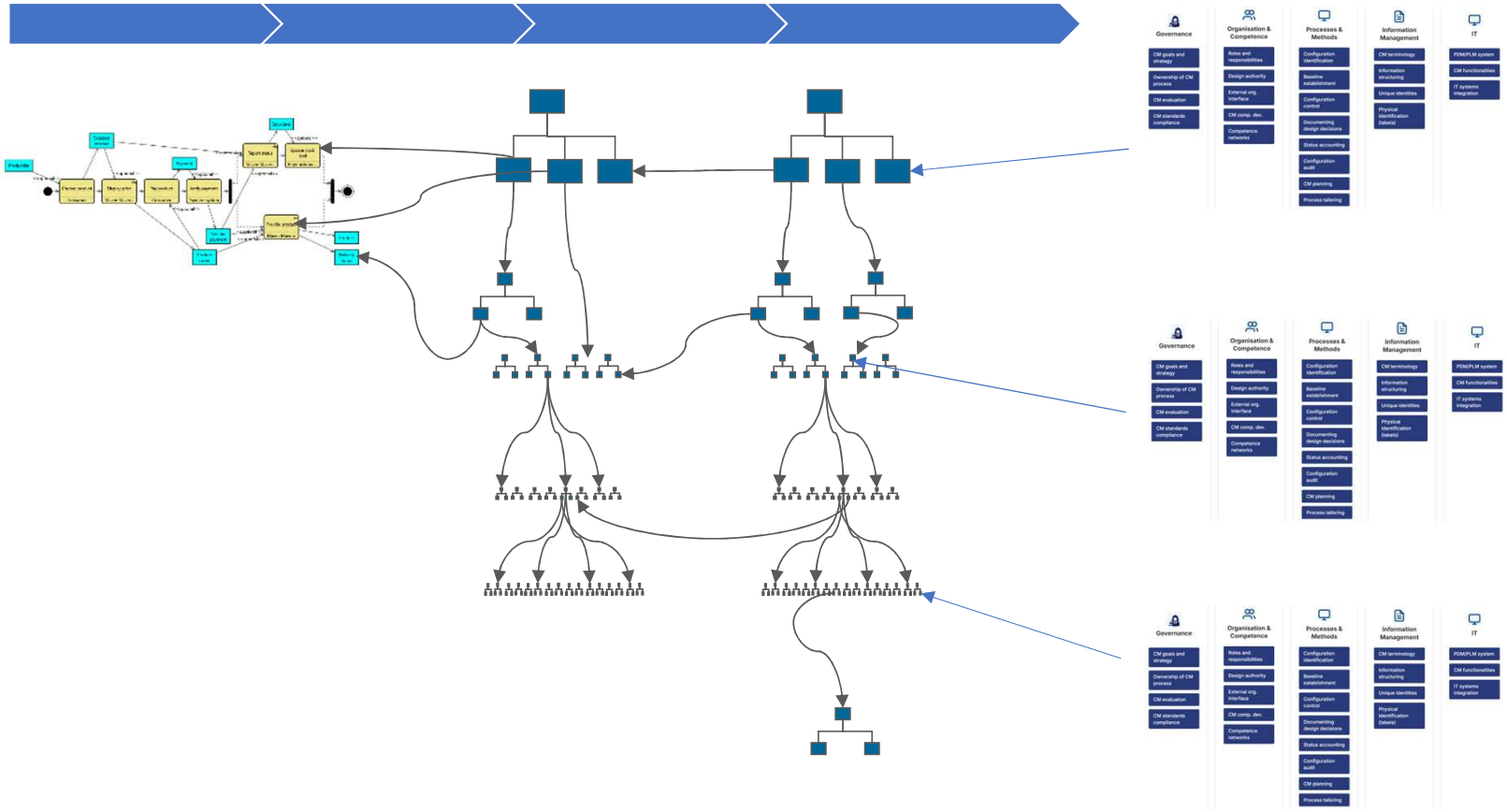
Adding the system dimension







Adding the Lifecycle dimension



The human dimension

How does this apply to my context?

How are my needs being met?

What do I need to do?

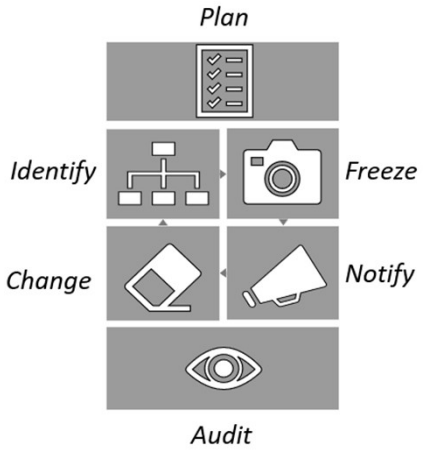
Why am I doing this?

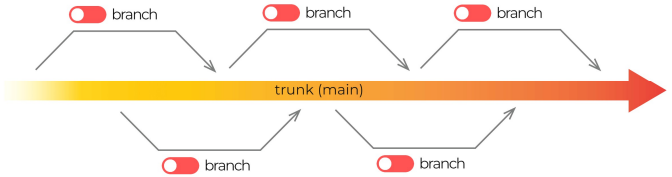
Let’s explore the different needs of CM!

CM for every need

- CM to support a one-track and/or branching strategy
- CM for DevOps
- CM for Product Line Engineering or other forms of asset re-use
- CM for System-of-systems
- CM to facilitate SW/HW integration
- CM for acquisition

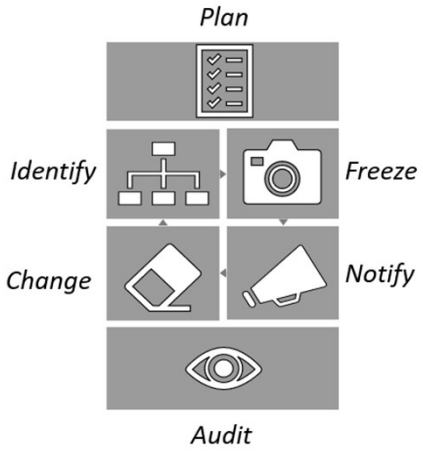
CM applied to
- One-track/trunk-based development

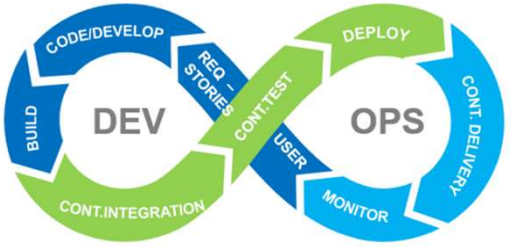




- Short lived feature branches
- Version control to
  - Handle configuration/feature toggle
- Keep latest running, quality standards
- Change process

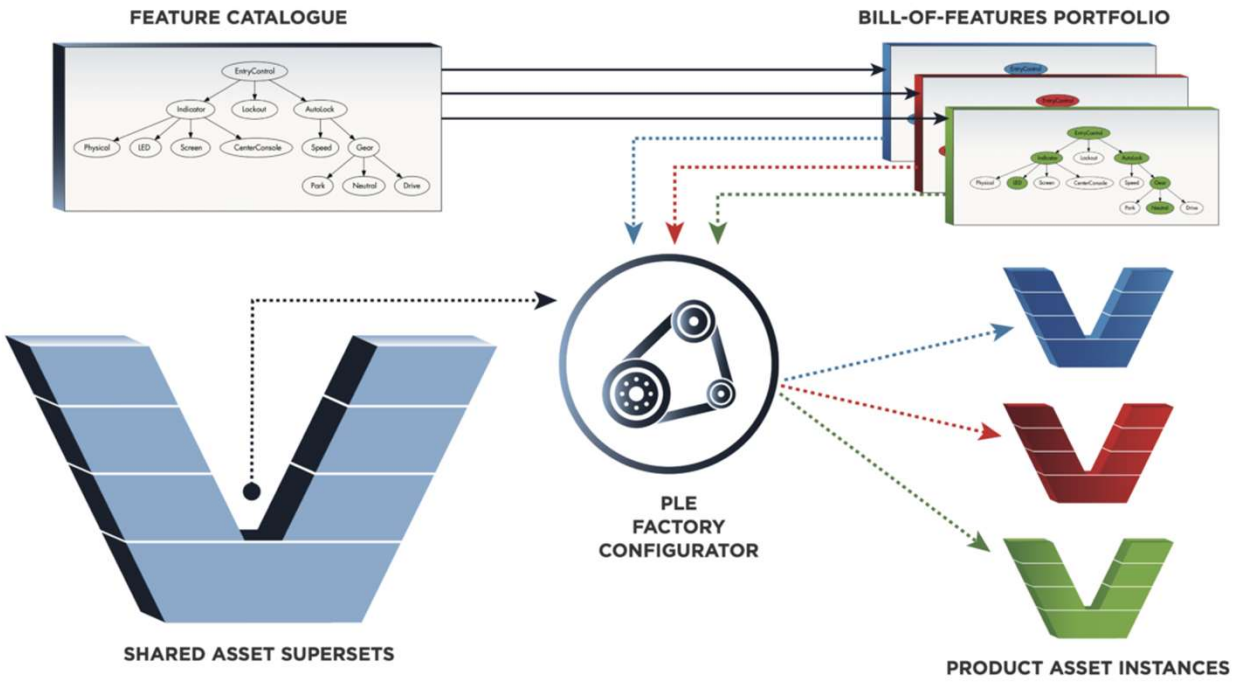
CM applied to - Devops





- Hand-overs are minimized, tool integration to share information
- Monitoring and health-checks
- Version control and automation
- Change management
- Ops is responsible for pipeline, Dev for uptime/ fast response

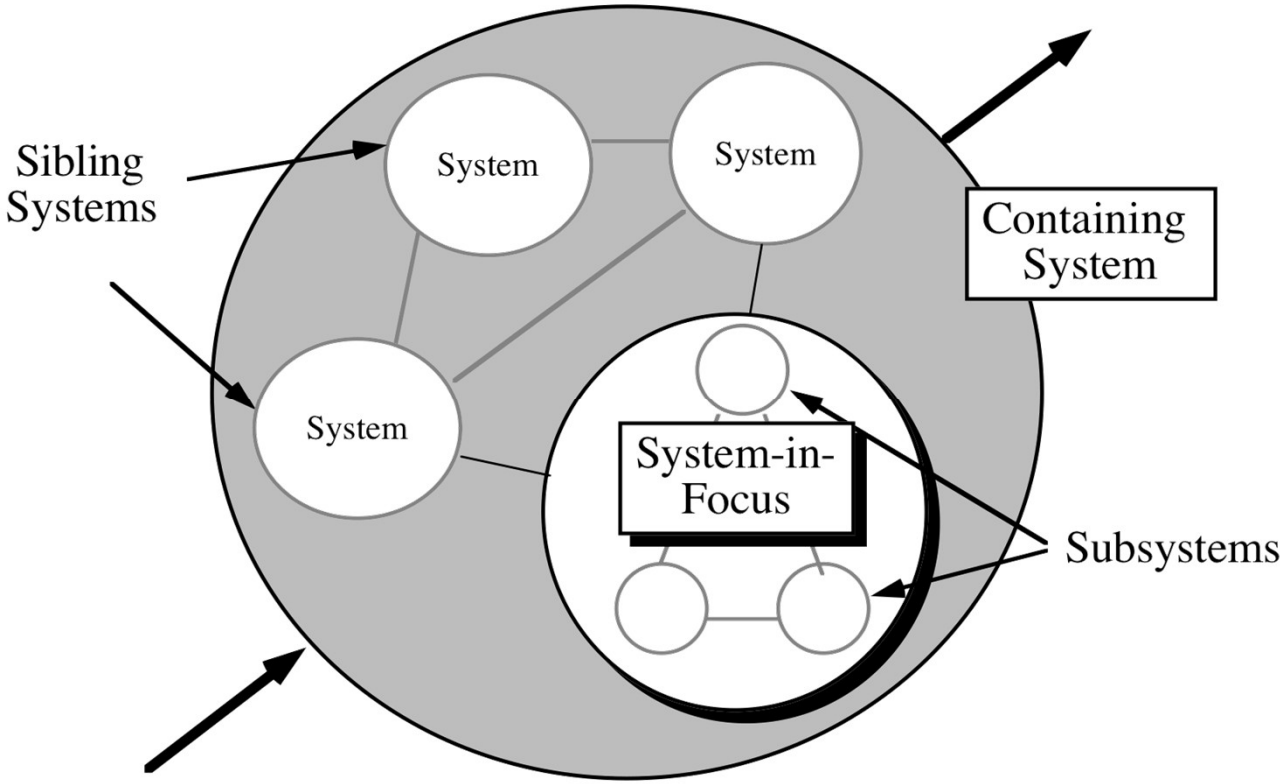
CM applied to
- Product line engineering



Critical aspects to adress for CM:

- Governance for shared assts and product assets
- Governance for Configurator rules and logic
- Traceability from Shared assets Supersets - Features - Variants

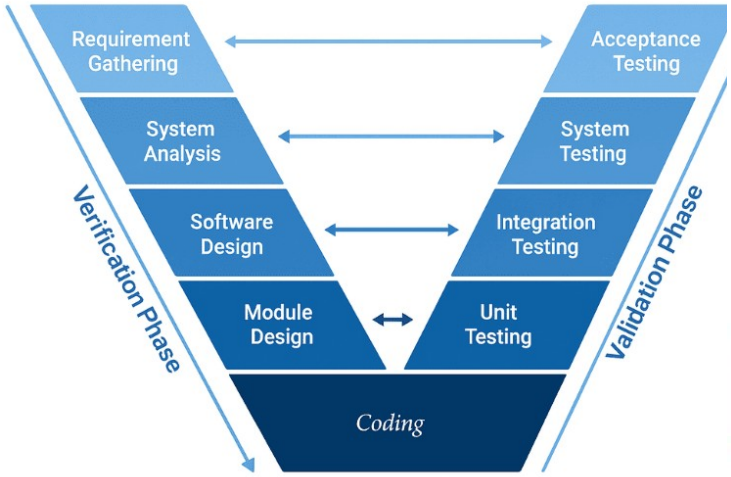
CM applied to
- System-of-systems



Critical aspects to adress for CM:

- No hierarchy between systems
- CM focused on supporting Interface management
- CM activities need to be aligned and agreed across Systems

CM applied to
- Facilitate HW/SW integration



Critical aspects to adress for CM:

- What development model is applied for HW and for SW?
- What dependancies exist between development models?
- Which baselines are needed in order to support that dependency?

CM applied to
- Acquisition

Critical aspects to adress for CM:

- Which CM activities need to be aligned with my suppliers?
- What requirements do I need to set on my suppliers CM?
- What should I monitor and what should I audit?
- What CM activities do i want to contract for?

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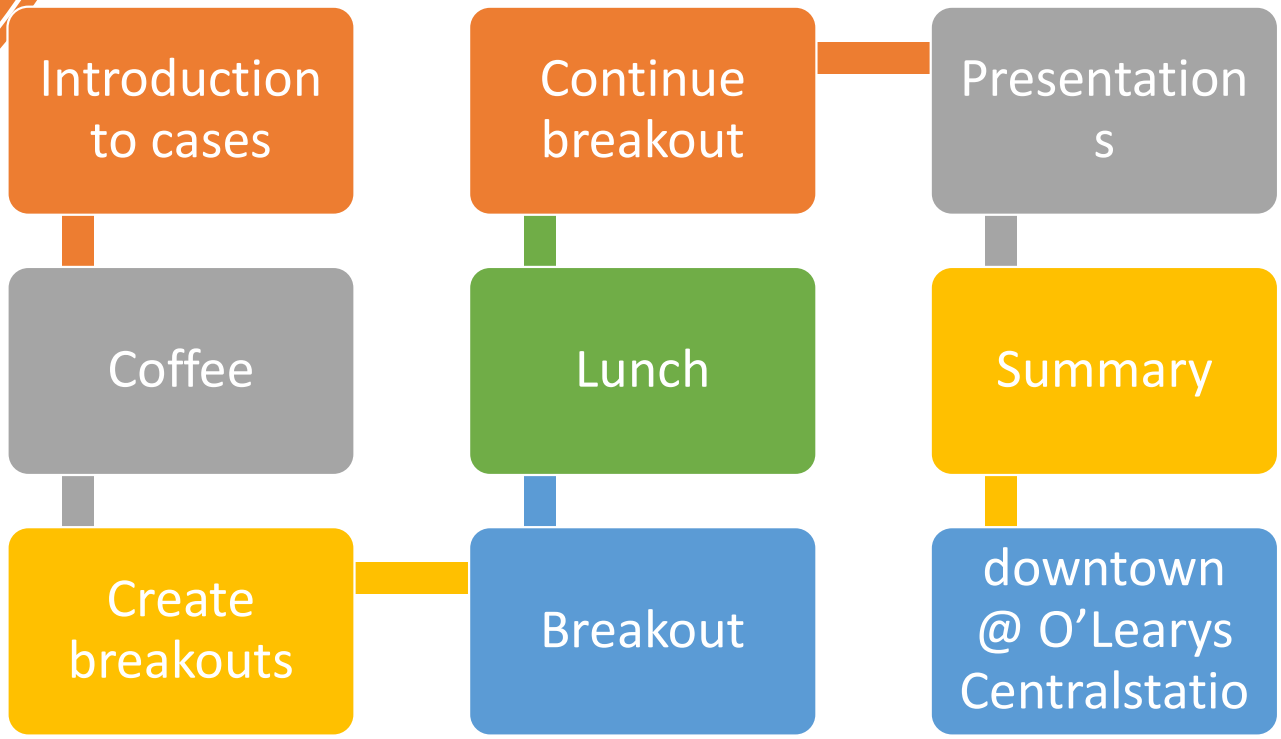
Placeholder Volvo

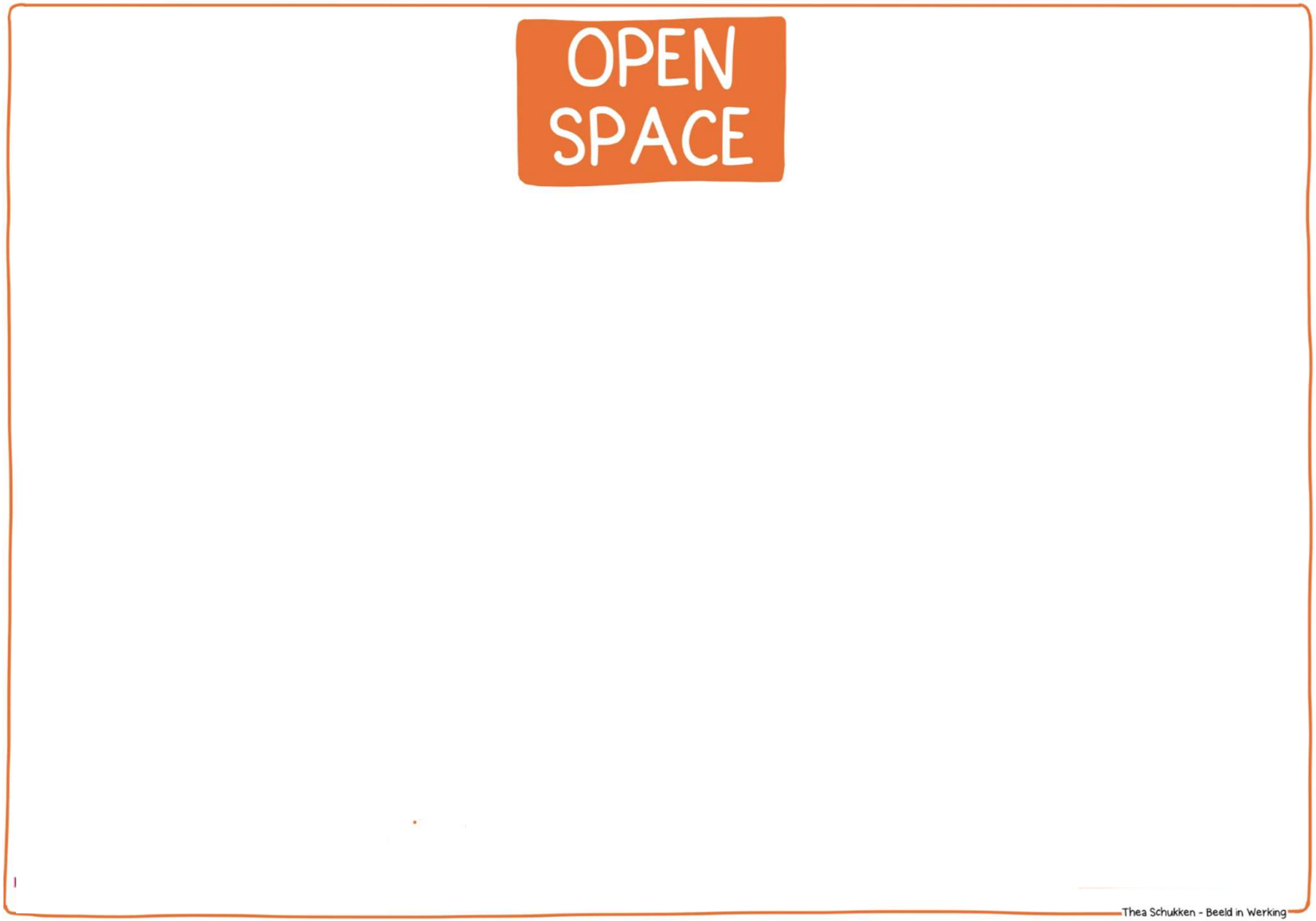
Workshop


Introduction to cases
Coffee
Create breakouts
Breakout
Lunch
Continue breakout
Presentations
Summary
downtown @ O'Learys Centralstatio

- Open Space
  - Regler (Minst tre) max 8 > två grupper
  - Presentationer (före fikat)
  - Välja grupp och komma igång
  - Grupparbete
- Presentation (7-8 grupper, presentation 3min frågor tre minuter)
  - 1) Problemet nedbrutet, antaganden/ramar
  - 2) ”Lösning” givet antaganden. Topp tre insatser
  - 3) Insikter (realiserbarhet, dolda faktorer, information vi saknar, vad vi inte hann prata om) från grupparbetet

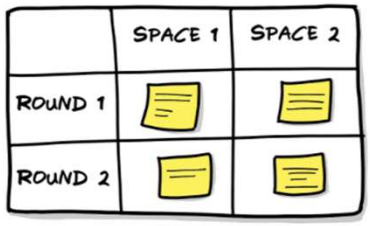
CM workshops

- Open Space
- Additional rules

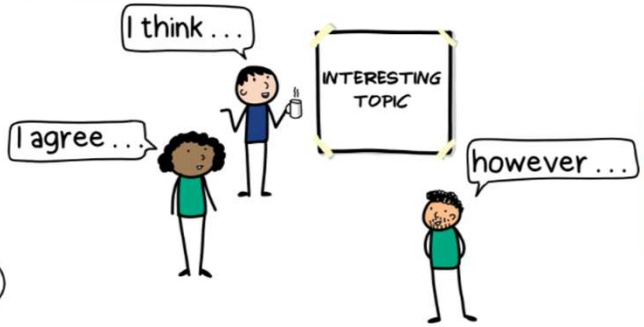

OPEN
SPACE
Thea Schukken - Beeld in Werking

OPEN SPACE

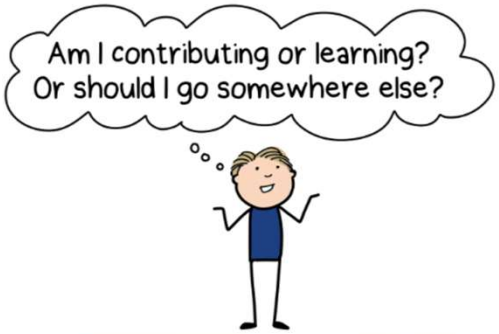
Whoever comes are the right people



Whatever happens is the only thing that could have



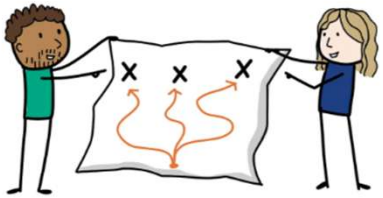
The butterfly attracts people into interesting conversations at the coffee table



The law of mobility

The bumble bee moves from group to group to cross-pollinate

Whenever it starts is the right time



Wherever it happens is the right place

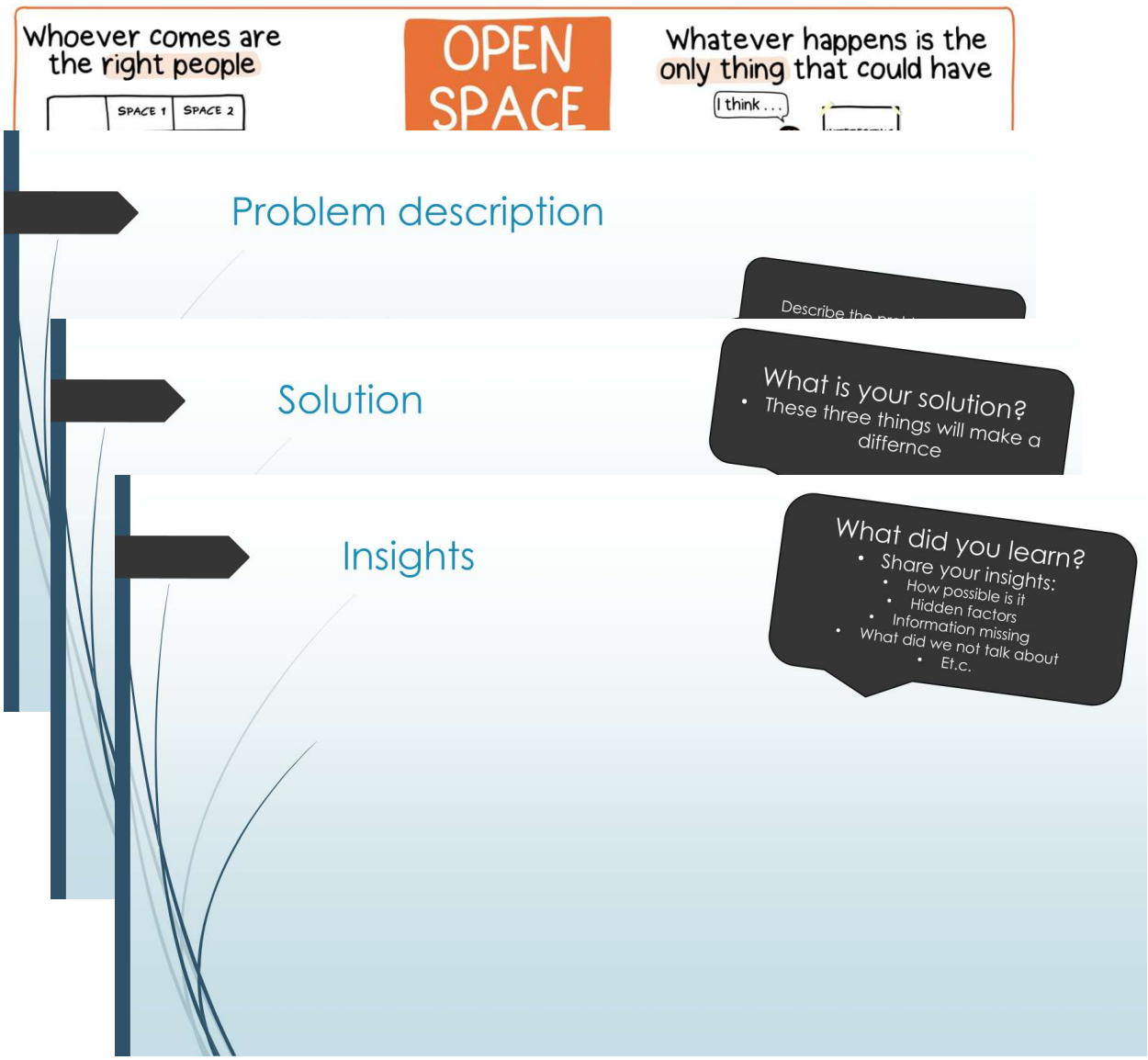
When it's over, it's over

The Liberators

Thea Schukken - Beeld in Werking

CM workshops

- Open Space
- Additional rules
  - 3-8 persons
  - Expected outcome



Rooms: 7, 8, 13, 15, 17, this room

Challenges

	Challenge	Room/Space
1	How to enhance and clarify a suitable CM scope in an organization where the definition and idea is vague and/or diluted.	
2	How to expose and communicate the benefits of CM in the organization in order to raise priority of the CM activities.	
3	How to guide decisions regarding the level of detail in Configuration Identification to support different lifecycle stages	
4	How to enhance CM through audits and change management when the organization is extremely undermanned	
5	How to harmonize CM with interdependencies across and inside SW development streams	
6	Maintaining CM principles with shared responsibility	
7	Prioritizing CM in complex system of systems	

Challenge 1: How to enhance and clarify a suitable CM scope in an organization where the definition and idea is vague and/or diluted.

Context:

Tier 1 supplier in global automotive industry. Developing mechatronic systems for many OEMs. Process requirements from standards like IATF16948, ISO26262 and Automotive SPICE

Challenge

CM is both too rigorous and too casual at the same time. Assessors consider the socio-economic-technical system which comprises people, tools, work products etc as the scope for assessment. Even the vacation list-document has become a configuration item.

At the same time, the mechanical design engineer may struggle to know which version of the drawing belongs with which version the requirements and which version of the test case, which is at the core of “normal” configuration management, where the *system* whose *configuration* you are *managing* is the *product* that you deliver to you customer.

Challenge 2: How to expose and communicate the benefits of CM in the organization in order to raise priority of the CM activities.

Context:

The company is present in the automotive industry. The parts developed are primarily HW/mechanical focused and to a lesser degree SW development. Some SW is developed in-house, and some are bought from a supplier.

There are 7 different departments developing equipment

The persons responsible for CM activities often have other duties like integration and release-responsibilities. Therefore, CM activities are neglected when delivery pressure increases.

Challenge:

In this context a lot of fire-fighting issues pop up, and preventive CM actions are never performed. Performing the right amount of CM tasks is hard to achieve.

How do we expose and communicate the benefits of CM in the organization to raise priority of the CM activities?

Challenge 3: How to guide decisions regarding the level of detail in Configuration Identification to support different lifecycle stages

Context:

The company is in the heavy industry with a significant global market share for its products. There is a defense market with CM requirements as well as Integrated Logistic support, ILS, requirements on failure modes and preventive maintenance. Life expectancy is very long, 30-50 years.

The Challenge

How do you create guidelines for setting the level of detail when identifying configuration items for configurations and instructions on how to track each item through different stages like Concept- Sale – Engineering – Production - Operation – Decomission

Challenge 4: How to enhance CM through audits and change management when the organization is extremely undermanned

Context: Big networking system with hundreds of integrated third party products. 15 integrators, very little source code, but scripting in python, Powershell and ansible. No requirements nor testing written down.

The challenge: Try to create some order and traceability, version handling, change management and follow-up by PCA and FCA, when the team is heavily under stress and extremely undermanned, to be able to get some more people onto the team.

Challenge 5, How to harmonize CM with interdependencies across and inside SW development streams

LCC = Life Cycle Component, LCP = Life Cycle Package

Context

Our organization operates as a global multi-site development environment where numerous distributed teams collectively deliver components into a shared, Kubernetes, containerized-based system. The delivery architecture follows a pipeline structure from LCC* → LCP* → Delivery. Three independent development streams (Stream 1, Stream 2, and Stream 3) each have their own release owners, processes, and organizational boundaries, yet all produce artifacts that must be integrated at the system level. Despite operating separately, their outputs are partly interconnected.

The challenge

We need to establish a reliable and unified Configuration Management (CM) model across the three development streams, which share complex, bi-directional dependencies. Stream 1 and Stream 2 both consume each other's components during build and packaging activities, and Stream 1 additionally produces SDKs and NuGet packages that are used by various other components. Without backward-compatibility governance, new deliveries might break compilation or cause runtime issues across streams.

Challenge 6

Maintaining CM principles with shared responsibility

"Applying the skin cream" to all project members. In the past, CM was a formal role in many organizations. With the "new" agile ways of working, many chose to abandon that bottleneck (a good choice) and instead distribute the responsibility across everyone in the project. This is part of the foundation for self-organizing teams where decisions are made as close to the knowledge as possible. The challenge lies in making CM as it was before - the four fundamental principles - understandable and useful for everyone involved in a simple way. Shared responsibility is no responsibility, as they say.

Challenge 7

Prioritizing CM in complex system of systems

One of my challenges is what CM activities to prioritize for fairly complex system of systems to the armed forces, with shortage of/new resources, insufficient support system and too tight time schedules to delivery. I hope to find more efficient ways to work.

Coffee
Return
11:20

Rooms: 7, 8, 13, 15, 17, this room

Challenges

	Challenge	Room/Space
1	How to enhance and clarify a suitable CM scope in an organization where the definition and idea is vague and/or diluted.	7
2	How to expose and communicate the benefits of CM in the organization in order to raise priority of the CM activities.	8
3	How to guide decisions regarding the level of detail in Configuration Identification to support different lifecycle stages	Auditorium
4	How to enhance CM through audits and change management when the organization is extremely undermanned	
5	How to harmonize CM with interdependencies across and inside SW development streams	13
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Room for discussion

- 7
- 8
- 13
- 15
- 17
- Auditorium

Breakout

- In your room
  - Understand the challenge
  - Identify actions/mitigations

- Remember
  - Law of mobility
  - Make sure everyone is included, speak English when necessary
  - Lunch

Lunch
Return
13:15

Breakouts continued

- In your room
  - Understand the challenge
  - Identify actions/mitigations
  - Document in ppt or other digital format

- Remember
  - Law of mobility
  - Make sure everyone is included, speak English when necessary
  - Return 15.00

Presentations
15:00

Challenges

	Challenge	Room/Space
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CM challenge

Challange 1: How to enhance and clarify a suitable CM scope in an organization where the definition and idea is vague and/or diluted?

Problem description

- Identified problem: CM applied on project instead of product leads to waster in the form of scatter (finding relevant info takes time)
- Assumptions: CM should be efficient and effective to support engineering.
- Limitations: What can I do now to change this information? The project approach must still exist to pass audits.

Solution

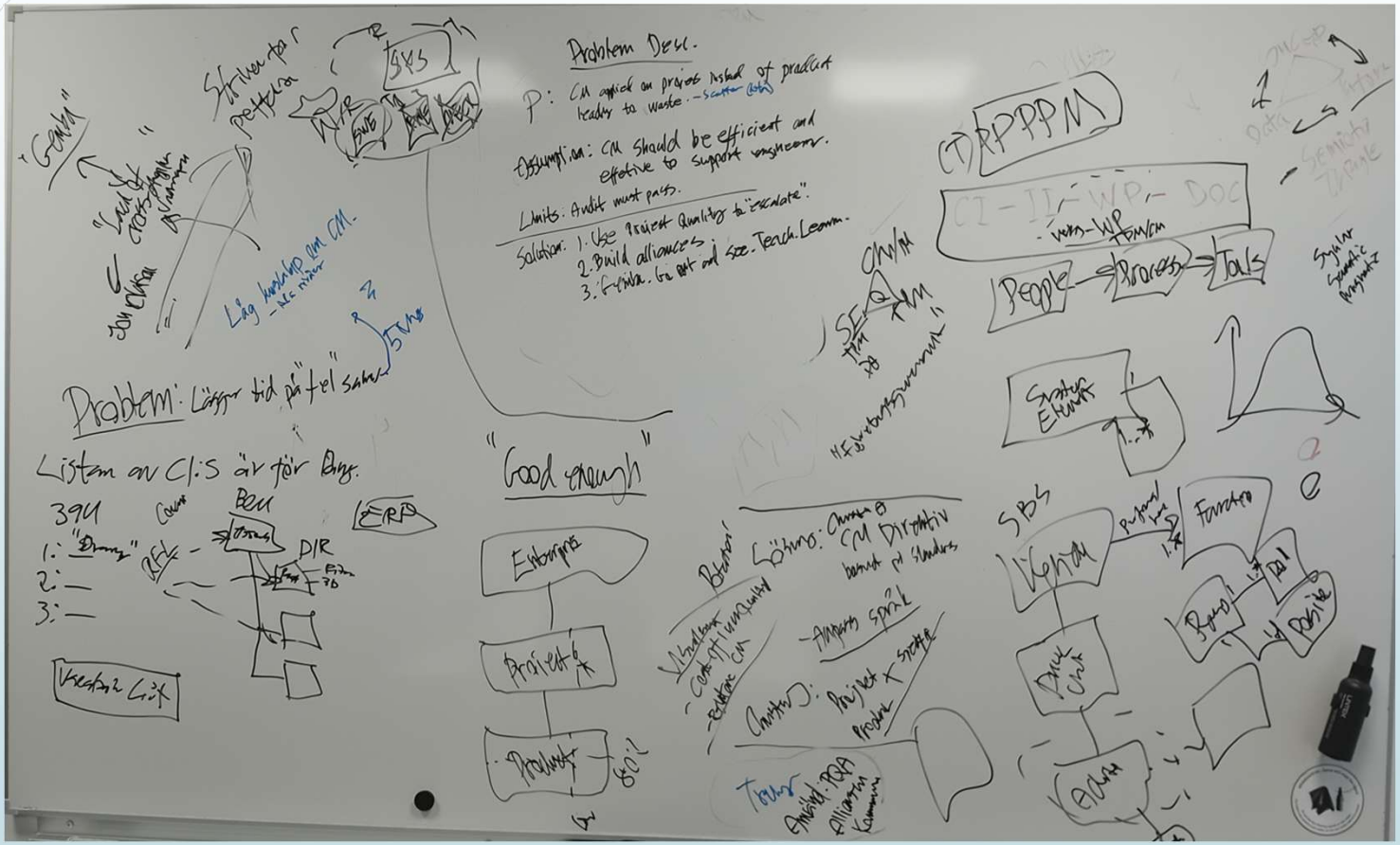
What is your solution?

- These three things will make a difference

- Top three

1. Use Project Quality to “escalate”
2. Build alliances with people that are trusted in the team and nudge CM that way.
3. Gemba. Go out and see. Teach/learn.

Insights



CM challenge

Challenge 2:
How to expose and communicate the benefits of CM in the organization in order to raise priority of the CM activities?

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Context:

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The persons responsible for CM activities often have other duties like integration and release-responsibilities. Therefore, CM activities are neglected when delivery pressure increases.

Challenge:

In this context a lot of fire-fighting issues pop up, and preventive CM actions are never performed. Performing the right amount of CM tasks is hard to achieve.

How do we expose and communicate the benefits of CM in the organization to raise priority of the CM activities?

Problem description

Describe the problem in the challenge

- **Identified problem:**
  - How do we expose and communicate the benefits of CM in the organizations to raise priority of the CM activities.

- **Assumptions:**
  - Different parts of the product configuration are distributed in several systems
  - CM activities not fully established and in different ways

- **Limitations:**
  Low CM maturity in the organization

To be able to find a way forward we made these assumptions and choose these limitations:

Solution

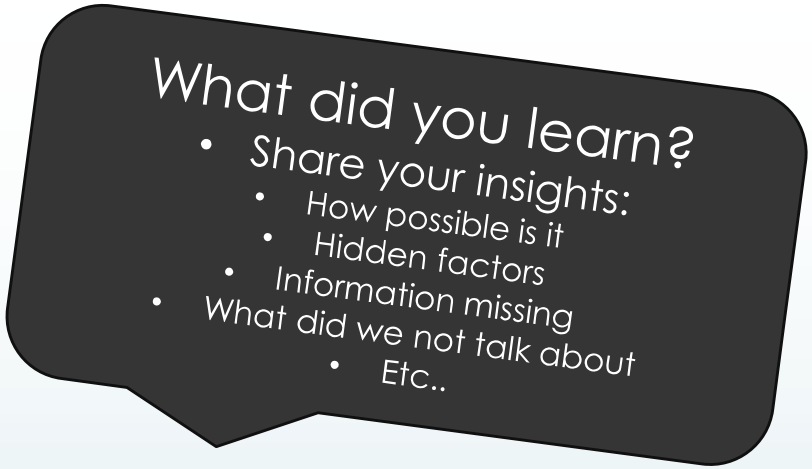
What is your solution?

- These three things will make a difference

1. Translate CM benefits into business impact
2. Use incidents to build the case for prevention
3. See the complete view of Configuration Management for the companies product development.
   Top Management attention and delegated mandate

Insights

- This is not unique for this customer
  It's a rather common challenge
- Management commitment is required
- With the complex system environments:
  * CM is NOT optional
  * CM is required



CM challenge

How to guide decisions regarding the level of detail in Configuration Identification to support different lifecycle stages

Problem description

- Identified problem:

The level of detail when identifying Configuration Items. Too much does not provide value. Too little will lead to suboptimizations.

- Assumptions:

A starting assumption was that CI = Articles = Spares

The discussion sorted out that these concepts actually mean different things and have different purposes

- Limitations:

Solution

- Functional breakdown is key to understanding criticalities. This will support Identifying CIs. To functions both risks and requirements are associated. Important to address this early in the process.
- A checklist needs to be developed, start with lessons learned from previous projects.
- Sort out definitions and responsibilities between
  - product and project as
  - project process vs product dev process
  - project information vs product information.
- Separate descriptions of concepts, such as “article”, “Installation”, “product”, “design”, “Configuration Item” etc. to be able to have a meaningful and precise conversation about these concepts.

Insights

- Key preconditions for CM and in particular configuration identification is missing, such as a Management system that reflects the intended scope and division of work.
- Terminology – to make sure we have all the terms we need and to define what we mean in a given context. CM need to take responsibility here.
- The level of CI is dependent on the stakeholder (customer, supplier, departments, processes, etc.), this can be managed by defining categories of Cis.

CM challenge 5

How to harmonize CM with interdependencies across and inside SW development streams

Problem description

- Identified problem:
  - Lack of dependency check during requirement handling,
  - Product architecture follows organization structure adding dependencies
- Assumptions:
  - Responsible for complete product (all 3 streams) is willing to make changes
- Limitations:
  - Organizational structure with 3 streams cannot be changed
  - Available tools will not be replaced.

Solution

What is your solution?
- These three things will make a difference

- Top three

1. Define different scenarios for changes: no dependencies, dependencies within stream and interstream dependencies and formulate strict rules around them. Add these rules to CM plan
2. Clear definition of dependencies in work items – connecting dependent items and adding labels for visualization in Delivery plan.
3. Test of the system (including different streams) earlier in the chain (before sending to System test) on a separate (pre-integration) branch.

Insights

What did you learn?
- Share your insights:
  - How possible is it
  - Hidden factors
  - Information missing
- What did we not talk about
  - Etc..

- CM organization with clear roles and responsibilities and mandate is important for CM plan
- Suggested solutions should be possible to achieve.
- Can be good to do value stream mapping to identify bottlenecks and inefficiencies together with teams. It will visualize the dependencies and might lead to changes in architecture.

CM challenge - 6

High performing CM in shared responsibility environment

Problem description

- Identified problem:
  - How to preserve and adapt CM practices in a way-of-working transformation.
  - Lack common CM understanding in what we mean
  - Clear CM responsibility is missing for formal delivery/release in bigger scope
  - Leadership team not CM mature enough and no CM coaching in place
  - Unclear/unspoken requirements within Agile require higher expectations on individuals
- Assumptions:
  - CM Plan should be different before & after Agile
- Limitations:
  - Compare changes before & after Agile transformation

Solution

1. Create and expand the local CM network(forum/CoP).
2. Update the new CM Plan with well-defined constraints.
   - Be bold to visualize technical debts and CM maturity
   - Be outspoken and supportive as Configuration Manager
3. Collaborative environment/tools in CM framework

Insights

- Give space, respect and freedom to people
- Management support is important for CM success
- Be part of external networking
- Sharing is caring – we are in the same CM boat
- Eat your own dog food – be a role model!
- Understand bigger context helps

CM challenge - 7

Ground based air defense – in an increasing amount system of systems,
what to prioritize within CM?

Problem description

- Identified problem:
  - Need more CM-resources
  - CM-knowledge in higher management needed
  - CI-structure
  - CM in early stages, and whole lifecycle
- Assumptions:
  - Clarify CM-requirements
- Limitations:
  - Lacking resources
  - Weak system structure
  - IT-system

Describe the problem in the challenge

To be able to find a way forward we made these assumptions and choose these limitations:

Solution

What is your solution?

- These three things will make a differnce

- Top three

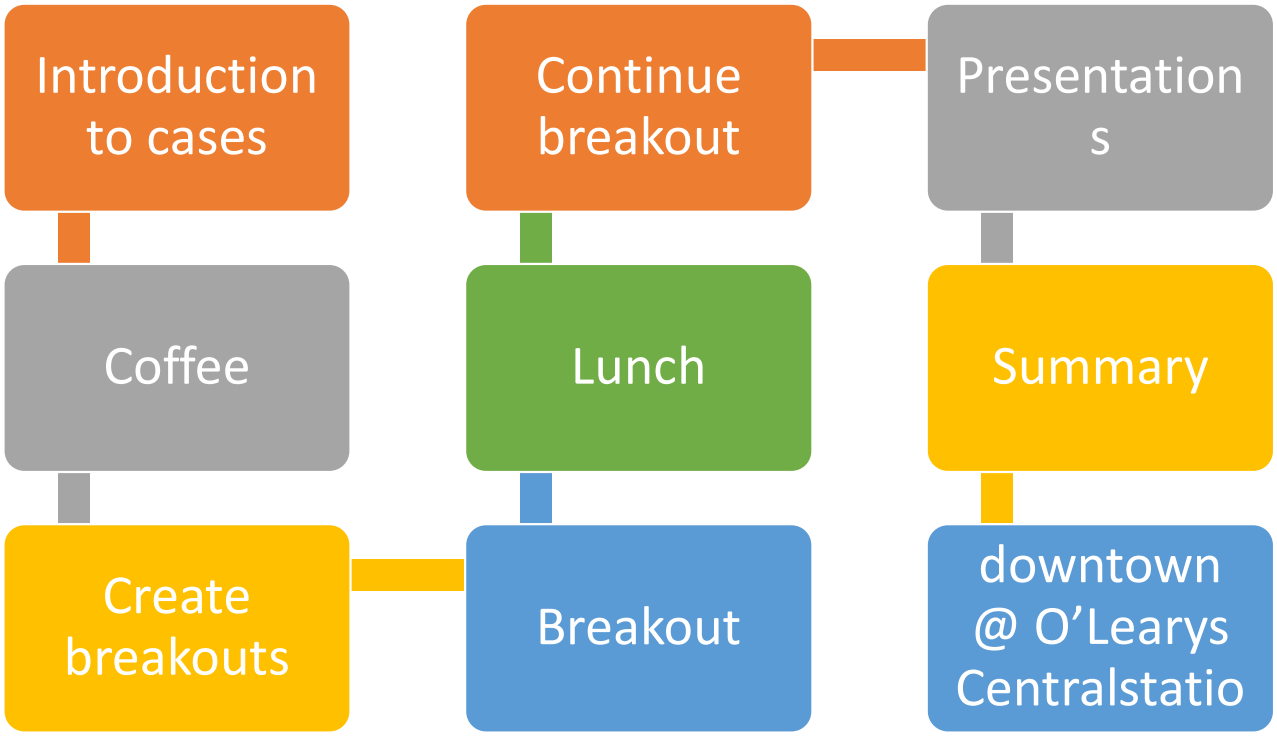
1. CM-training for new employee and management
2. Better IT-support system for CM (TeamCenter structure, change management etc.)
3. CM-policy and CM-plan(s) facing today systems

Insights

What did you learn?
- Share your insights:
  - How possible is it
  - Hidden factors
  - Information missing
  - What did we not talk about
  - Et.c.

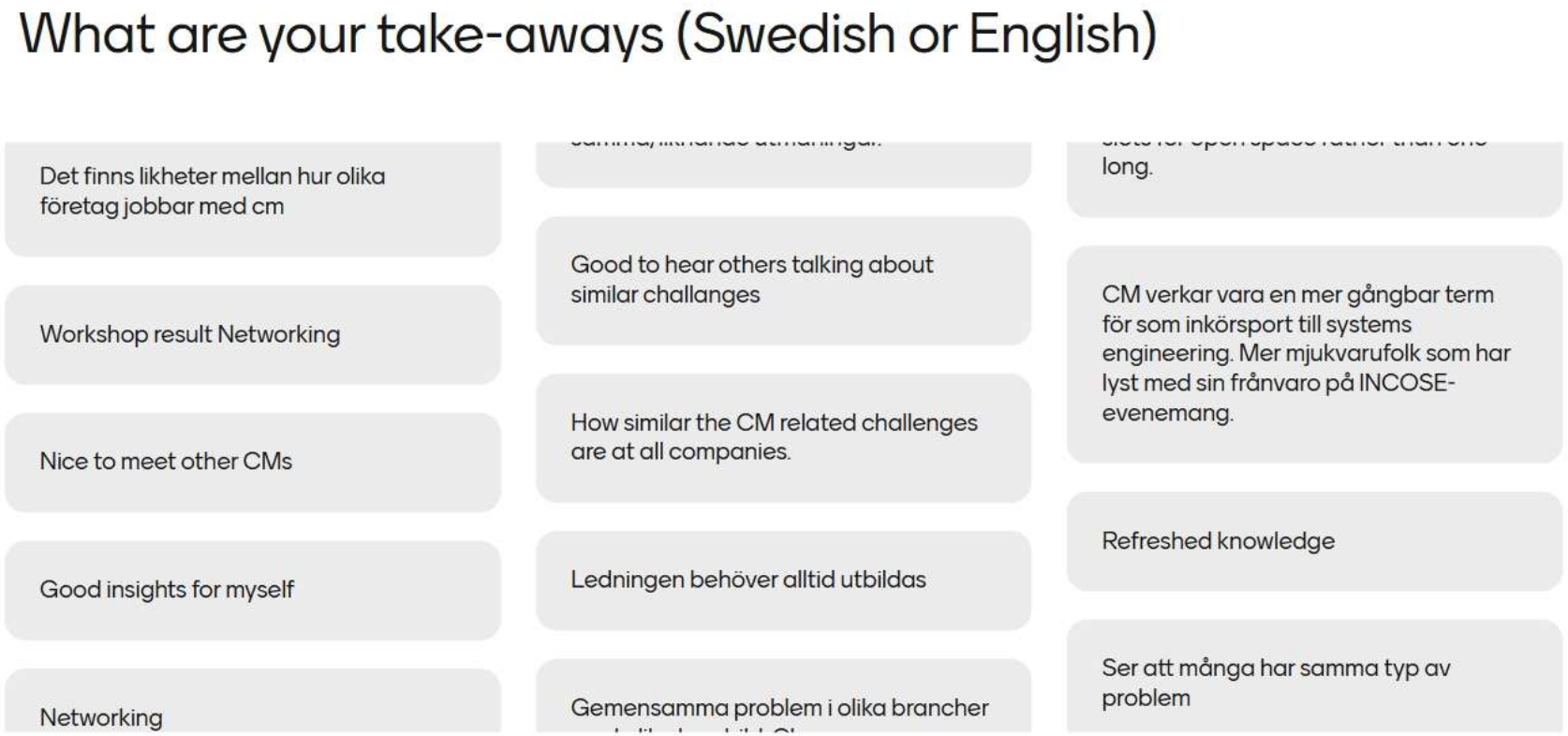
- There is a big change-process/-management needed
- Make the customer put higher demands on CM
- We have not discussed AI (automatization etc.)
- There is a need for everybody to always use CCB and CM-processes
- Better define and explain CM situation for close main supplier to get better support


Wrapping up


Introduction to cases
Coffee
Create breakouts
Breakout
Lunch
Continue breakout
Presentations
Summary
downtown @ O'Learys Centralstatio

Feedback
Take-aways (page 1/5)

Take-aways (page 2/5)



Take-aways (page 3/5)

Take-aways (page 4/5)

What are your take-aways (Swedish or English)

Idéer på lösningar blir för detaljerade. Problem/case formuleringarna skulle behövt vara mycket bättre, sparar tid.

Key take away its that we can create different user lists of each configuration item by categorizing them. This will simplify the communication with end customer and the internal users of the CI

Best insight from this event is that the problems we struggle with are the same, just other namings and contexts. Really good learning. Great presentations!

Mycket intressant & givande träff. Jag hade gärna varit med på ytterligare något samtal. Det vore bra om vi träffas lite tidigare för att kunna ha en gemensam fika, mingel på eftermiddagen.

Många tankar och nya kontakter

Många aktörer i samtliga tillverkar- och brukarled delar samma problematik t ex underbemannad CM eller att man är både projledare och CM, ambivalens om val av systemnivåer och CI.

development and systems engineering could be better

CM utmaningar liknar ofta varandra i olika organisationer när man jobbar med koplexa system . Så väldig bra att träffas i sådana forum för att diskutera tillsammans och dela sin erfarenhet.

Great with focus on delivery of the product such as the code, and not so much on documentation

Take-aways (page 5/5)

What are your take-aways (Swedish or English)

Best insight from this event is that the problems we struggle with are the same, just other namings and contexts. Really good learning. Great presentations!

Givande!

Liked the introductions. Both from Syntell and Volvo. Nice with open space concept for the workshop. Good to have real challenges from participants.

brukarled delar samma problematik t ex underbemannad CM eller att man är både projledare och CM, ambivalens om val av systemnivåer och CI.

Good presentations and discussions! CM is an important activities and role.

Good forum

Many CMs shere the same experiences.

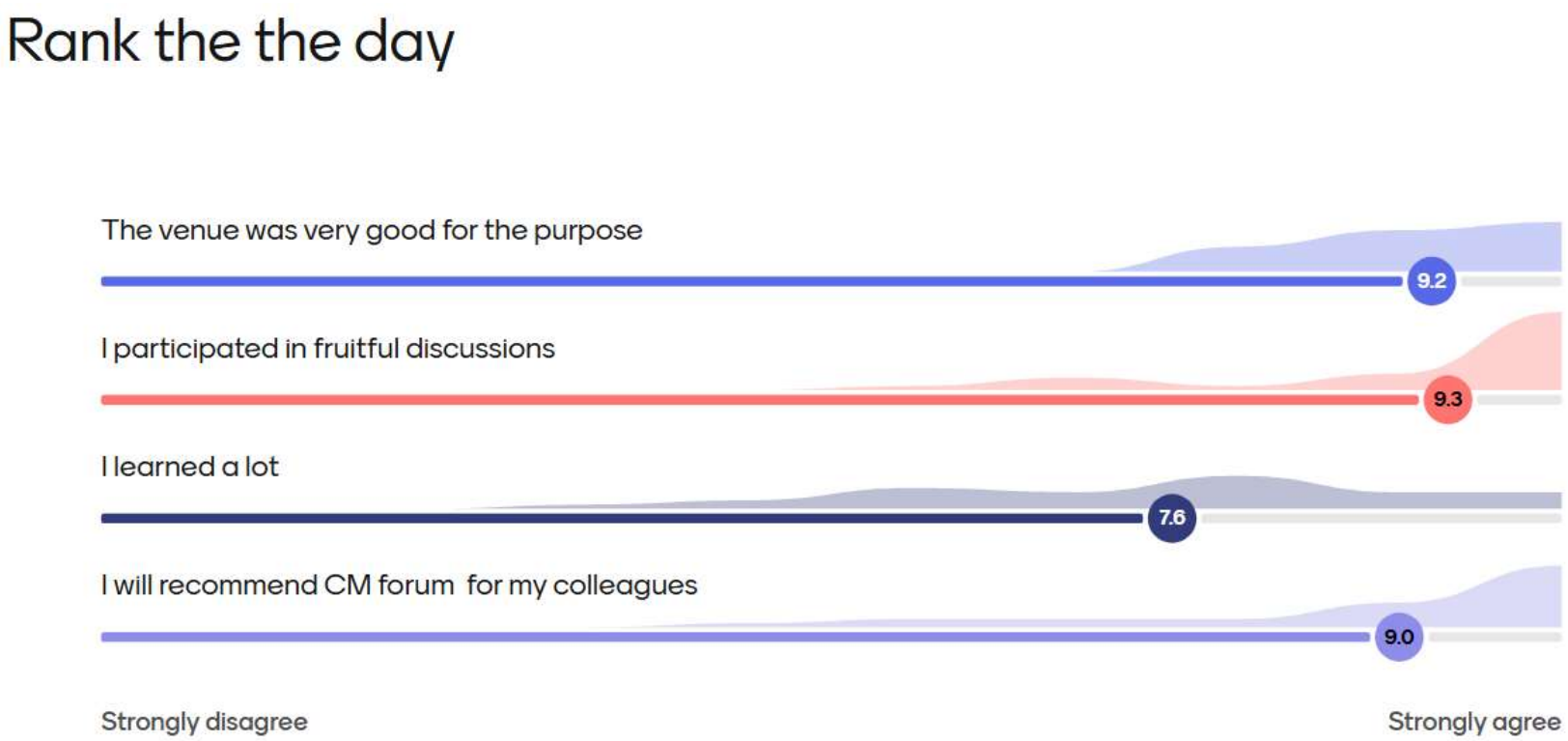
much on documentation

Jag fick väldigt bra input på hur andra löst sina problem i sina bolag som jag kan ta mig med tillbaka. Bra presentationsformat som her oss konkreta actions/splutions.

Inspiration to talk and hear other companies chalanges. All companies have possibilty to be better

Bra tips om metoder för att urskilja CI.

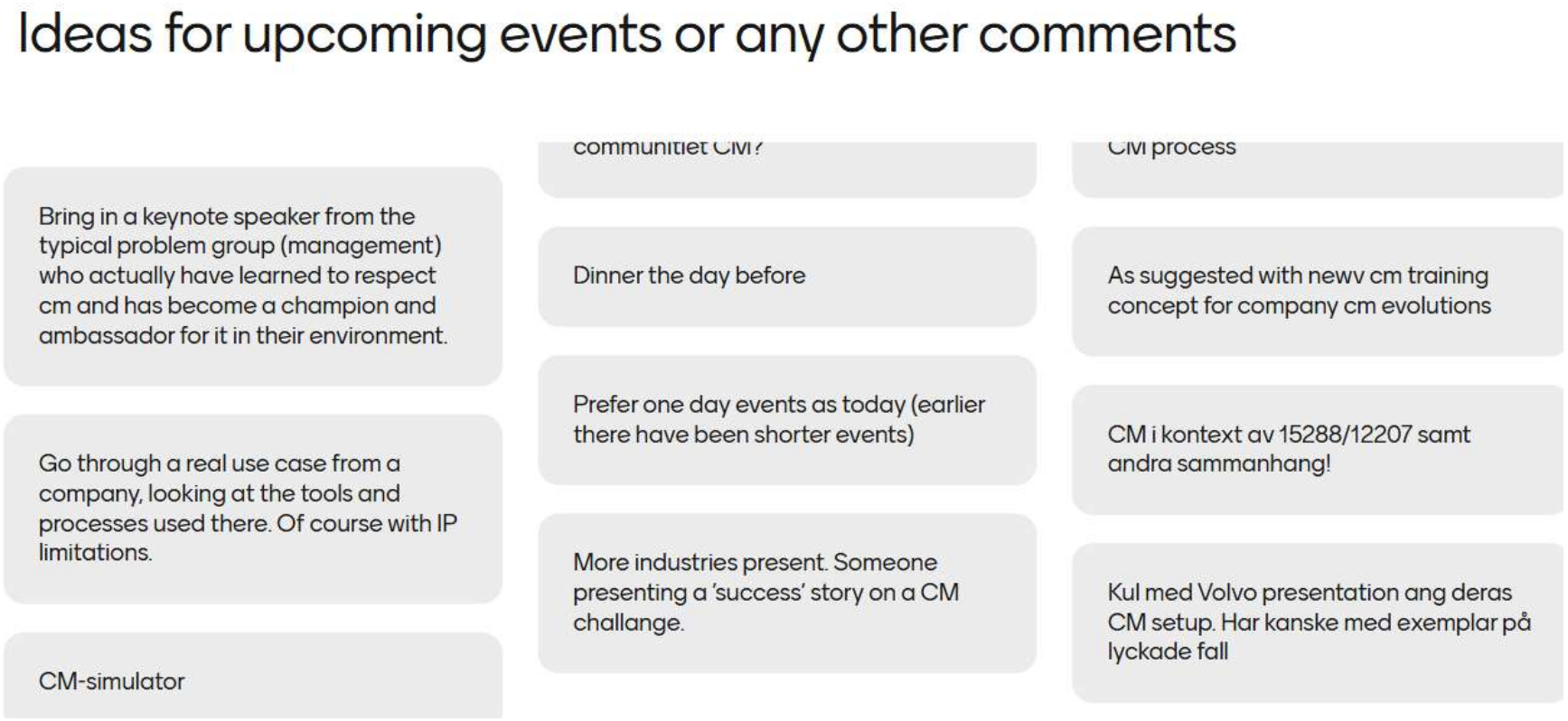
Feedback Rank the day



Word Cloud

Desribe today with one word

Ideas for upcoming events (page 1/2)



Ideas for upcoming events (page 2/2)