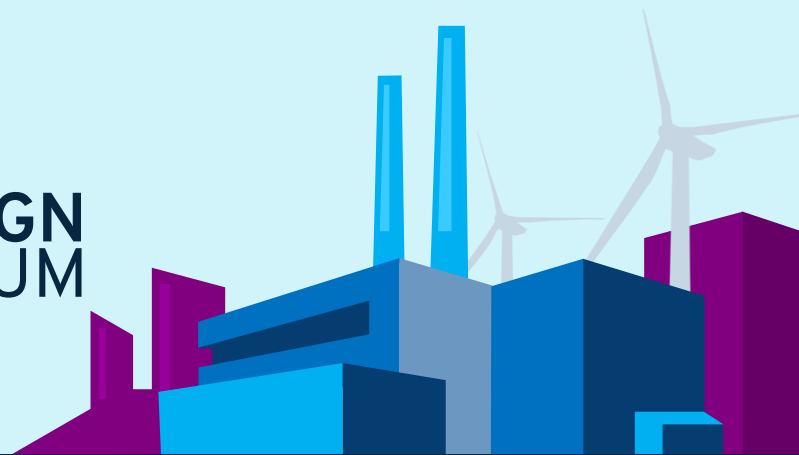




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# Innovativ konfiguration

*Produktstandardisering og -konfiguration*



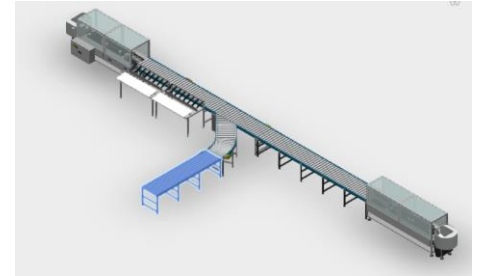
Jesper Brandt



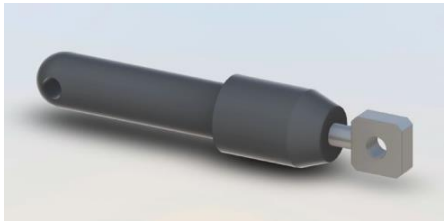
Morten B.  
Roldsgaard

# Tanker og eksempler

Med 3 scenarier i forskellig konfigurationstilgang



AUDIT  
CHANGE  
IDENTIFICATION  
DESCRIPTION  
PERFORMANCE  
PREVENTIVE  
ITEM  
**CONFIGURATION**  
MAINTAIN  
SERVICE  
PREDICTIVE  
**MANAGEMENT**  
IT  
ENGINEERING  
ESTABLISH  
CONTROL  
SOFTWARE  
SYSTEM  
STATUS



# Hvorfor konfigurere ?

Sikkerhed

Overholdelse af lovkrav og regulativer

Fleksibilitet

Ressourceoptimering

Kompleksitet i produkter

Leveringstider

Håndtering af ændringer

## Omkostninger

Standardisering

Effektiv produkthåndtering

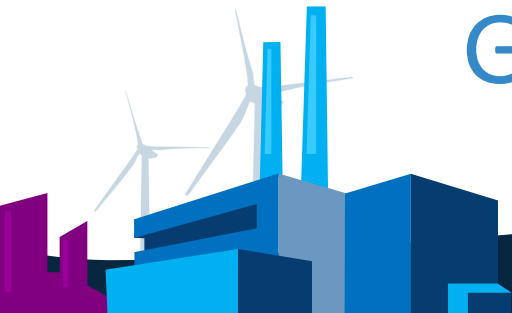
Data genbrug

Kvalitet og dokumentation

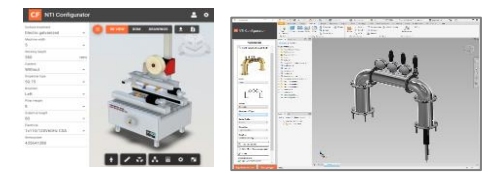
Garanti & pålidelighed

Global konkurrence

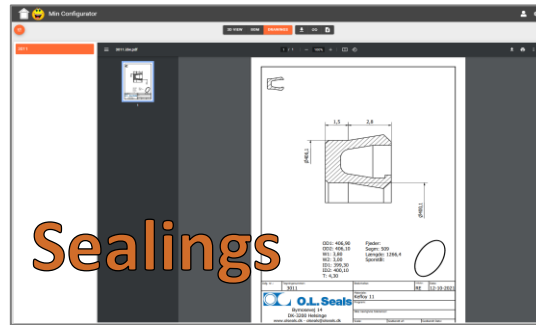
Nøjagtige og hurtige tilbud



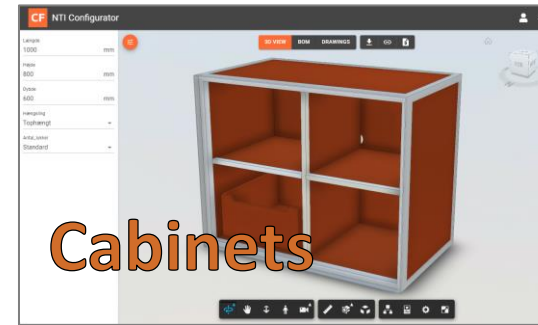
# Eksempler på ting der allerede konfigureres



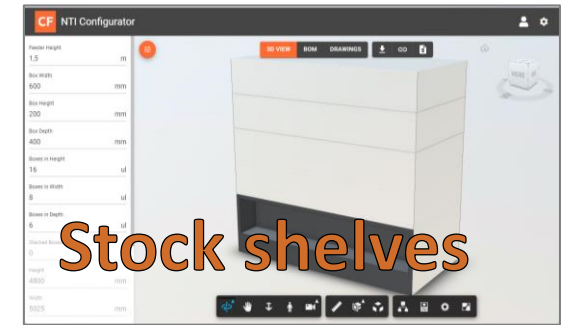
Bridges



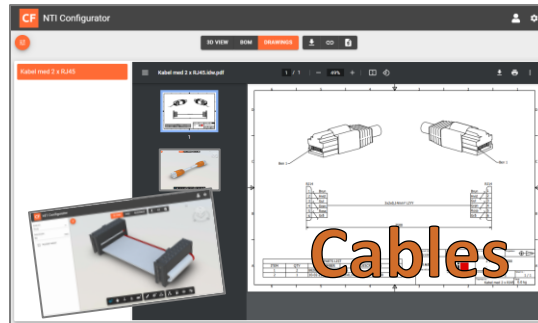
Sealings



Cabinets



Stock shelves



Cables

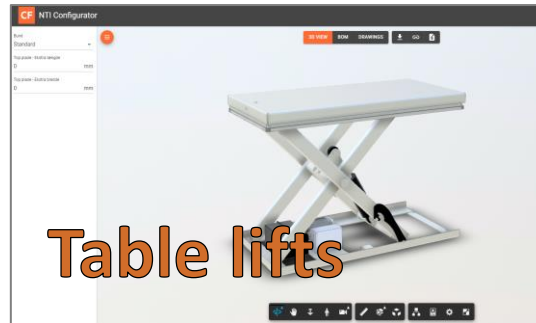


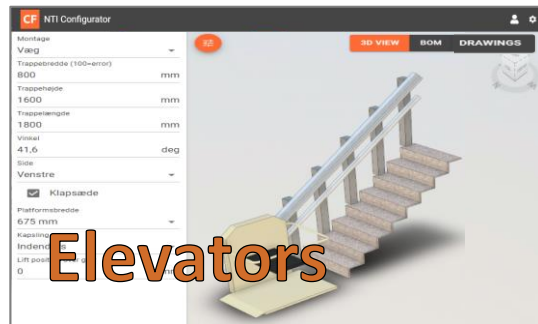
Table lifts



Stairs



Pig farms



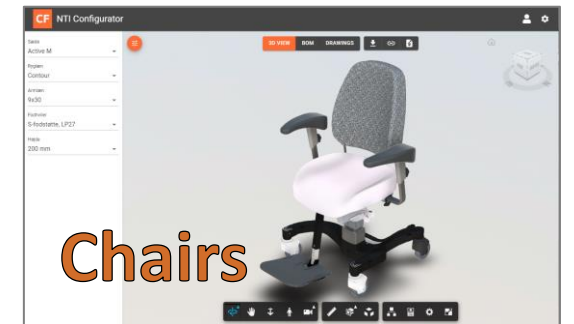
Elevators



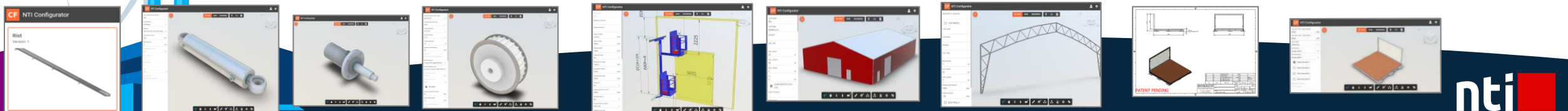
Bushes



Fans

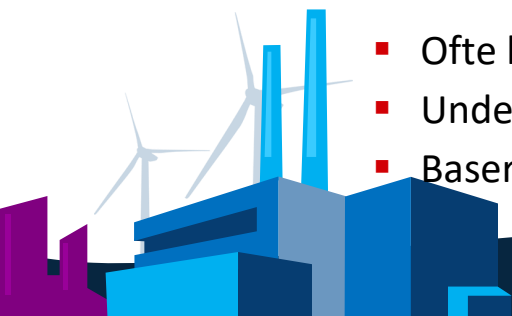


Chairs



# Konfigurations Varianter

- **Salgs integrerede konfiguratorer (CPQ, Configure Price Quote)**
  - Ofte tæt forbundet med salgsprocessen, og bygger på valg foretaget typisk i WEB og i CRM-systemer
  - Opretter forbindelse til CAD data eller uploadede filer for at understøtte downloads og tegninger
  - Forretningsintegration er ofte CRM/ERP integrationer
- **Grafiske salgskonfiguratorer (VPC, Visual Product Configuration)**
  - Ofte baseret på uploadet 'letvægts' grafik og programmerede grænseflader, valg i specifik grafik
  - Afhængig af uploadede data for at understøtte downloads og tegninger
  - Svært at håndtere og integrere specialprodukter i forretningens værdikæde, knyttes derfor ofte til CPQ
- **Regelbaserede konfiguratorer (CLM, Configuration Lifecycle Management)**
  - Ofte baseret på forbindelse til dataudbydere, såsom ERP, CRM, PLM og CAD m.m.....
  - Understøtter virksomhedsintegration 'end to end', typisk med regel-motor som hovedfunktionalitet
  - Kræver fuldt kendskab til værdikæden og dennes process/subprocesser og automatik
- **CAD konfiguratorer (CAD)**
  - Ofte baseret på lokalt installerede cad-systemer, jobservere og databaser
  - Understøtter ofte en konstruktionsmæssig tilgang og en kombination og blanding af ovenstående
  - Baseres ofte på optimering af konstruktionstid, samt standardisering og udgangspunkt for ETO projekter



# Udbytte af Konfiguration

## Konstruktion



- Reducerer ingeniørtiden
- Viden og regler i data
- Optimeret frigivelsesproces

## Salg



- Reducer salgstiden
- 3D visualisering og downloads
- Ensartet produktspecifikation
- RFQ & produktdokumentation

## Leveringstid/Produktion

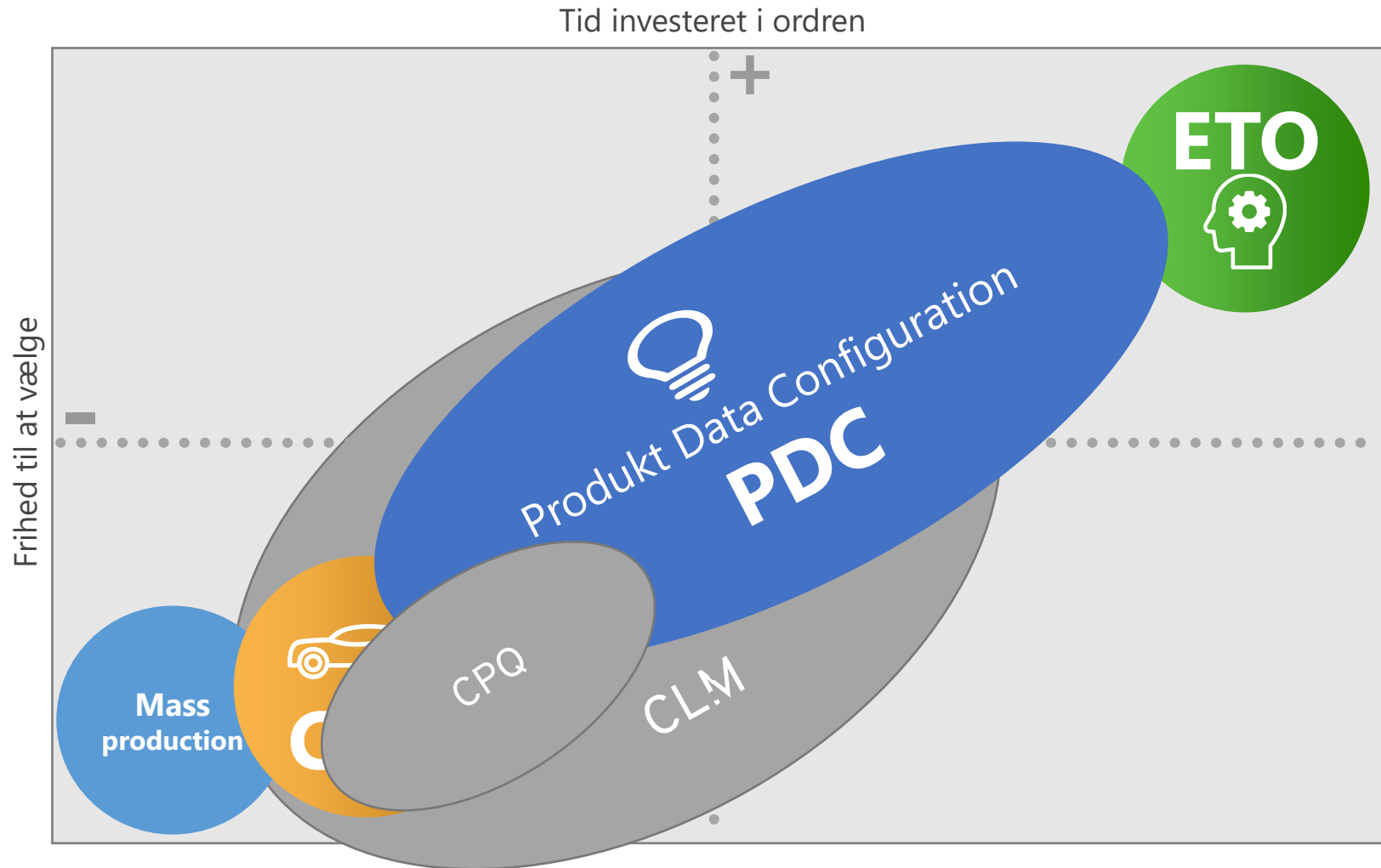


- Hurtigere leveringstid
- Understøttelse af fuld vare og stykliste
- Færre stop i produktionen

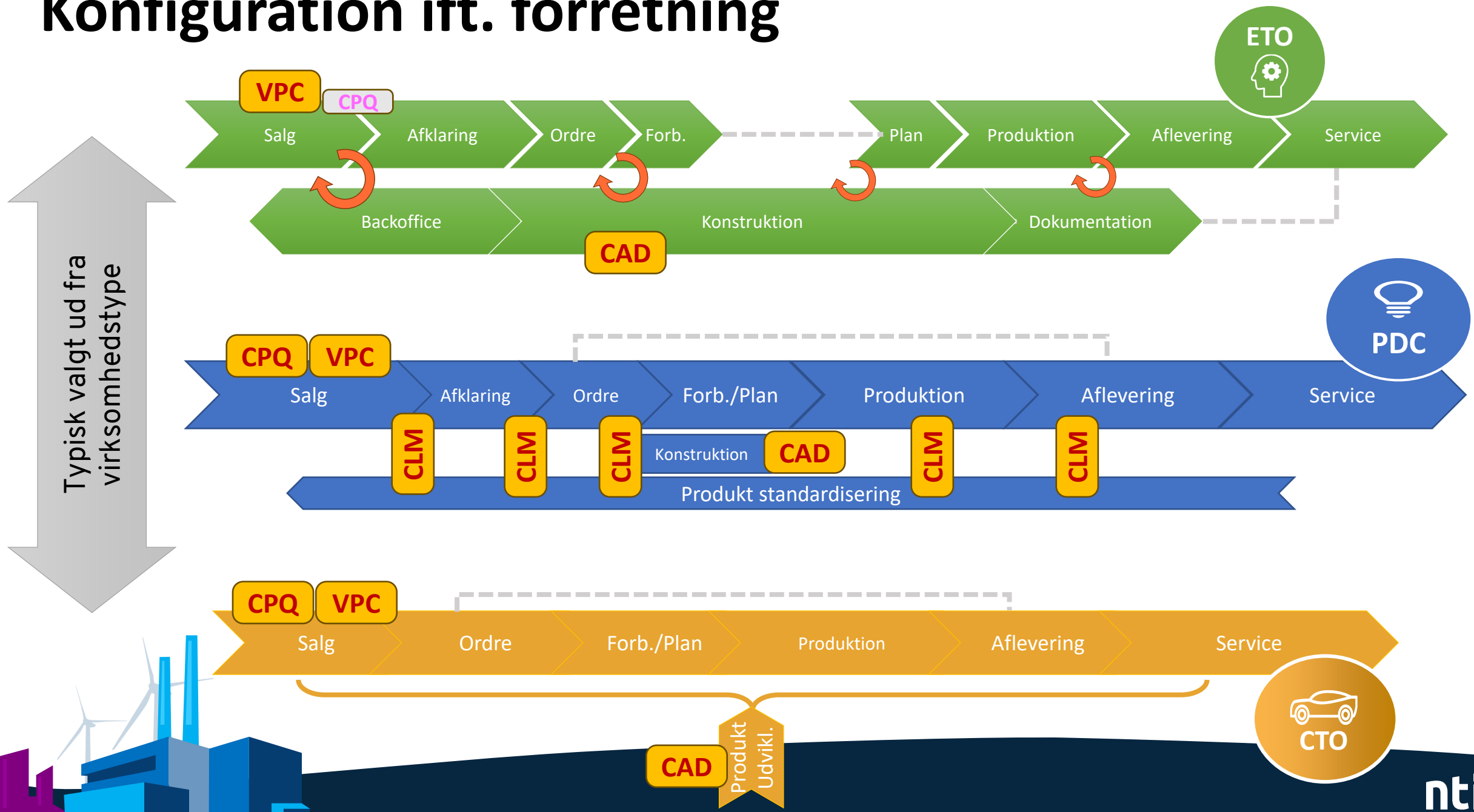
## Bedre kvalitet/service



- Ensartet proces og dokumentation
- Standardiseret produktresultat
- End to End produktkendskab

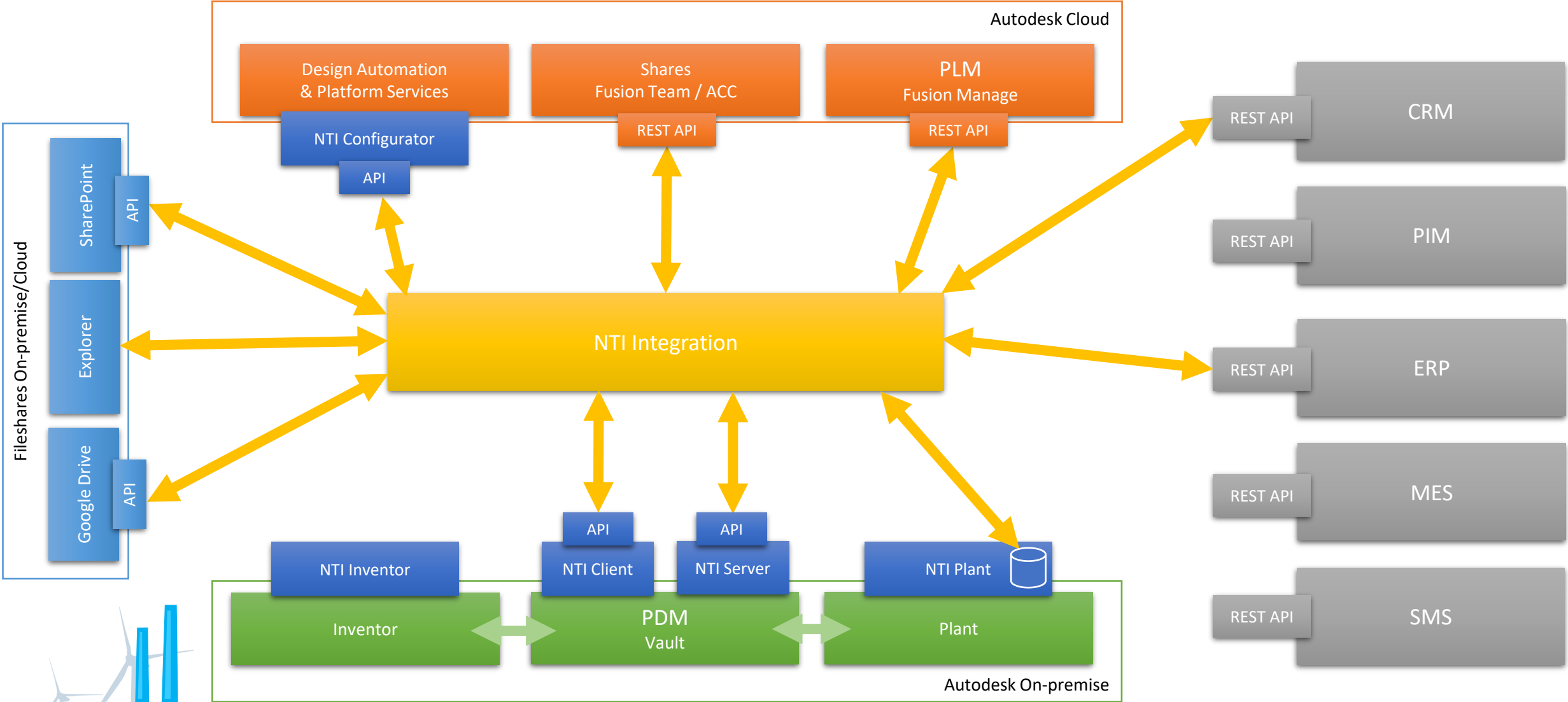


# Konfiguration ift. forretning





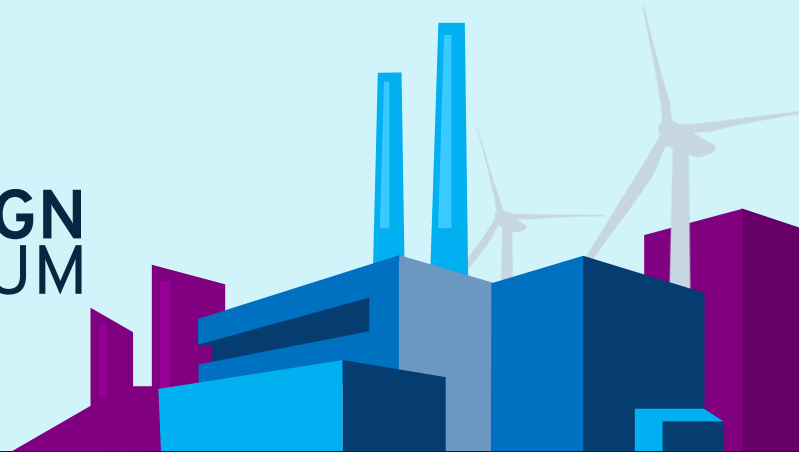
# System Integration







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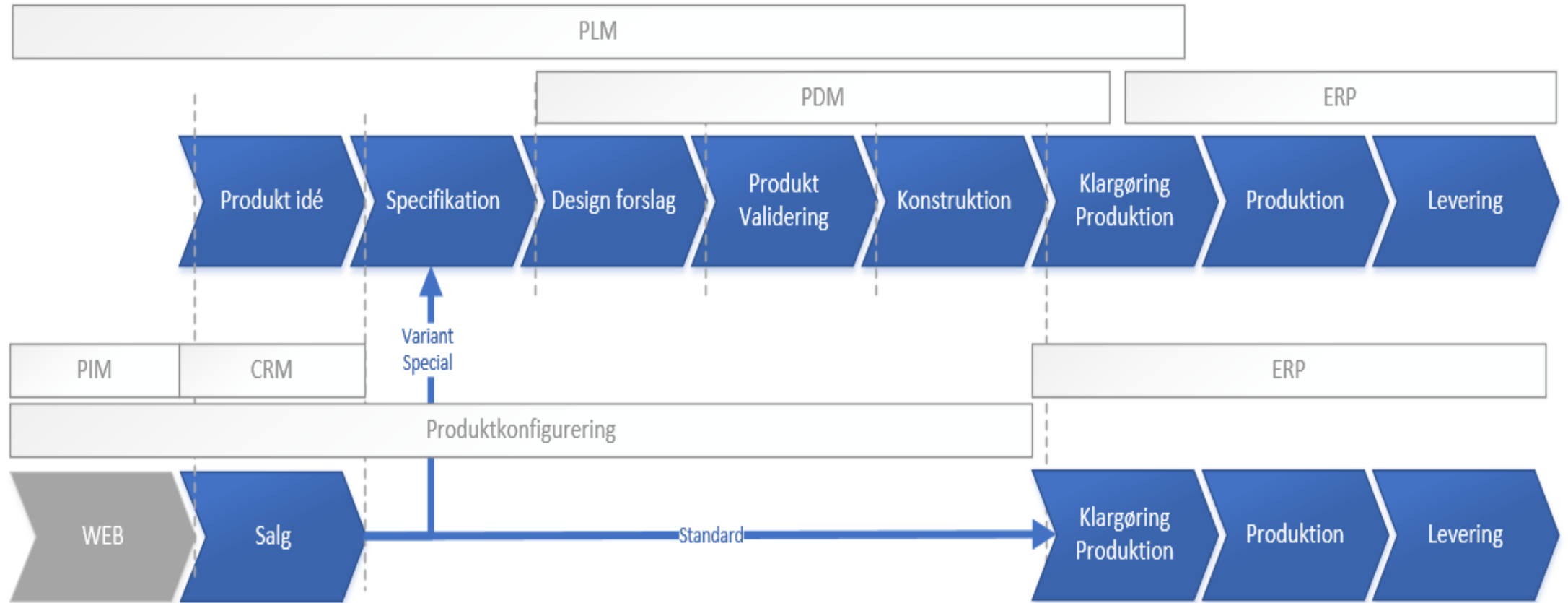
## 3 scenarier

*RFQ /CPQ – Web konfigurering*

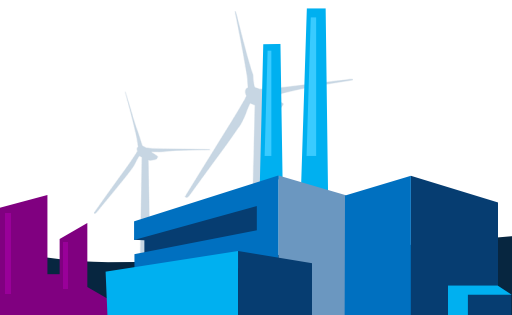
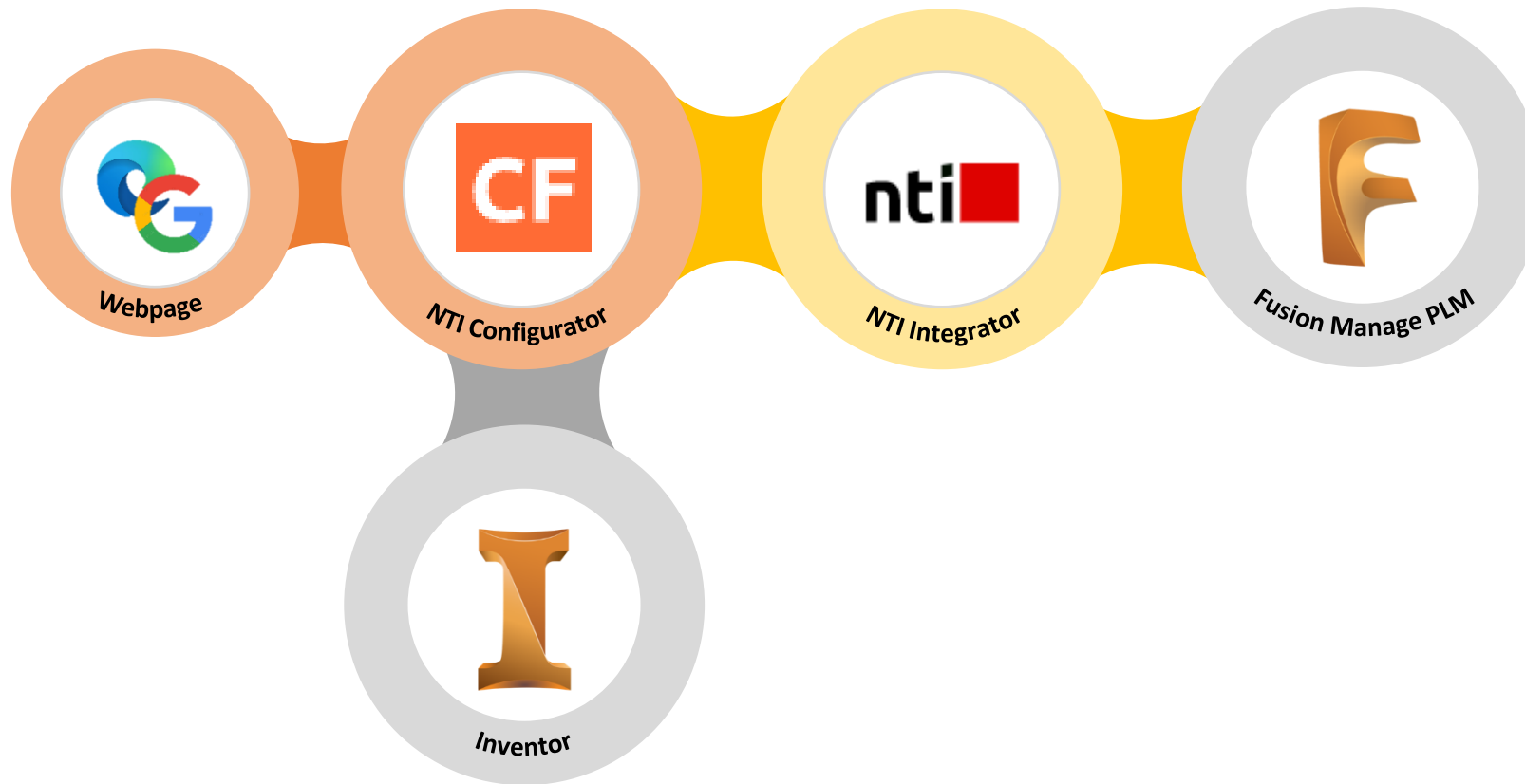
*PLM Standardisering – Produktkonfigurering*

*Projekt Layout – Equipment konfiguration*

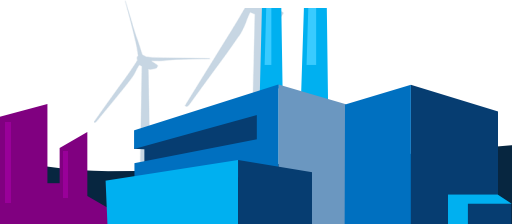
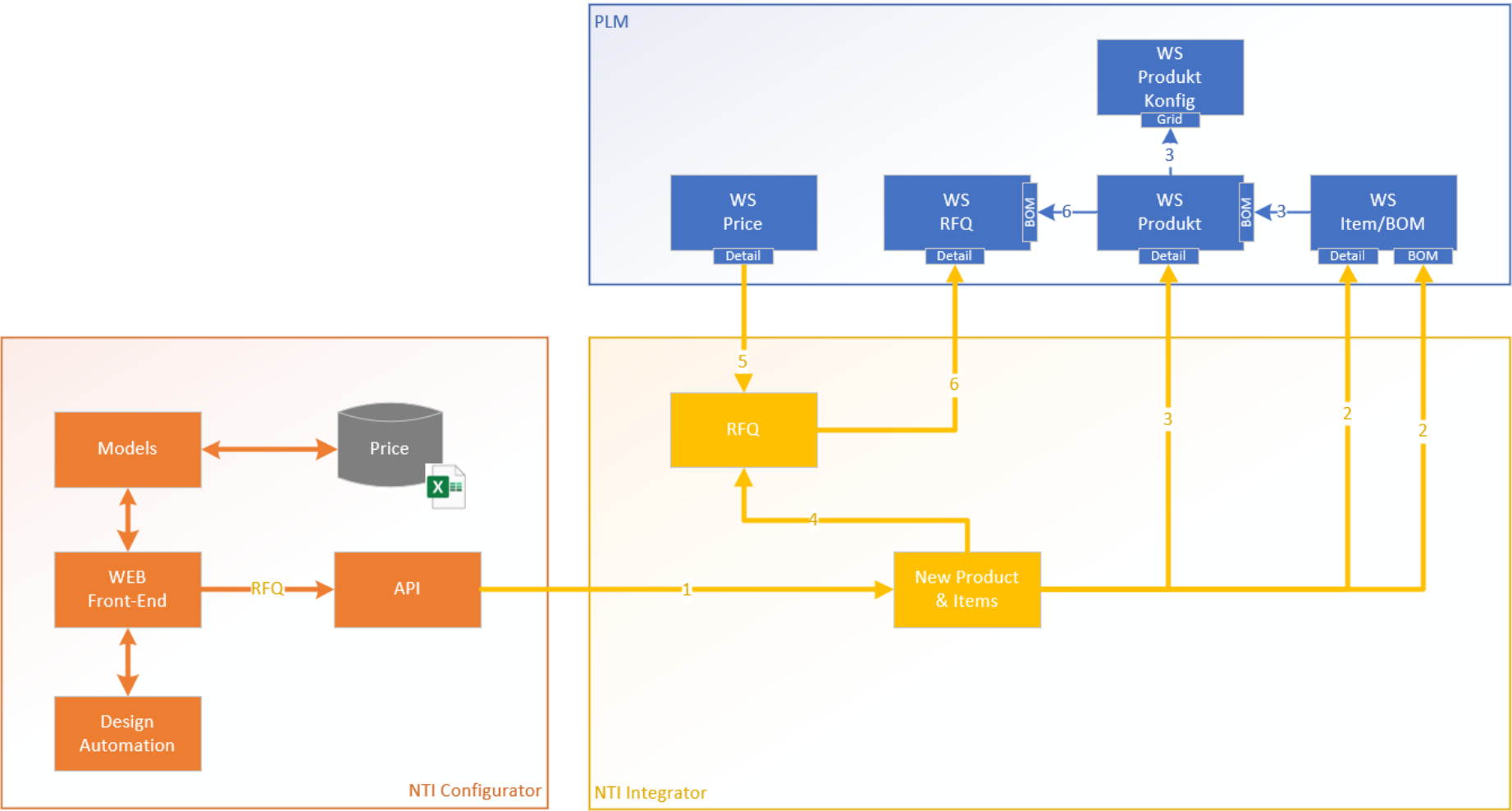
# Eksempel – Forretningsproces - Produkt



# Scenarie #1 – CPQ - Produktkonfigurering



# Scenarie #1 - Teknisk



# Scenarie #1 - Eksempel

RFQ000234

New Workflow actions Revert workflow action

Item Details Workflow Actions Bill of Materials (1) More +

Edit

RFQ Details (1 of 5)

Number RFQ000234

Type of RFQ Configured Product

Customer Benner A/S

Contact Morten Roldsgaard


Contact Email Kunde@kunde.dk

Initial RFQ Date 30/10/2023

Planned Close Date

RFQ Comment 2 stk tak!

Preview



Open in Vault

RFQ000234

New Workflow actions Revert workflow action

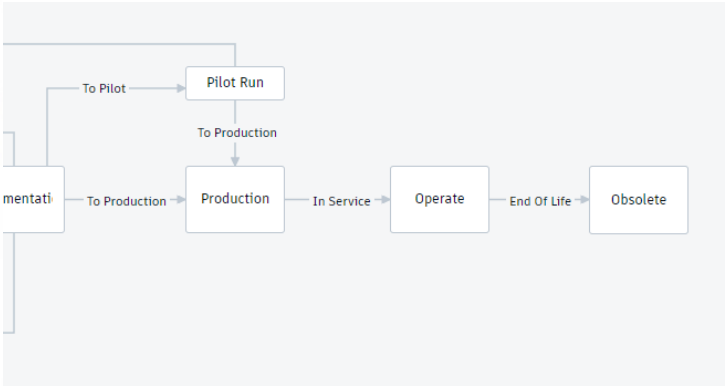
Item Details Workflow Actions Bill of Materials (1) Relationships (0) Attachments

Edit Add Remove

Default View

#	Descriptor	Revision	
0.0	RFQ000234	undefined	
1.1	999-854964 - Cylinder	undefined	
2.1	999-123456 - Cylinder [REV:w]	Working	
3.1	999-234567 - Tube for cylinder [REV:w]	Working	
3.2	999-345678 - Piston rod [REV:w]	Working	
4.1	999-654321 - Rod [REV:w]	Working	
4.2	999-765432 - Bearing - Fork [REV:w]	Working	

CANCEL



RFQ000234

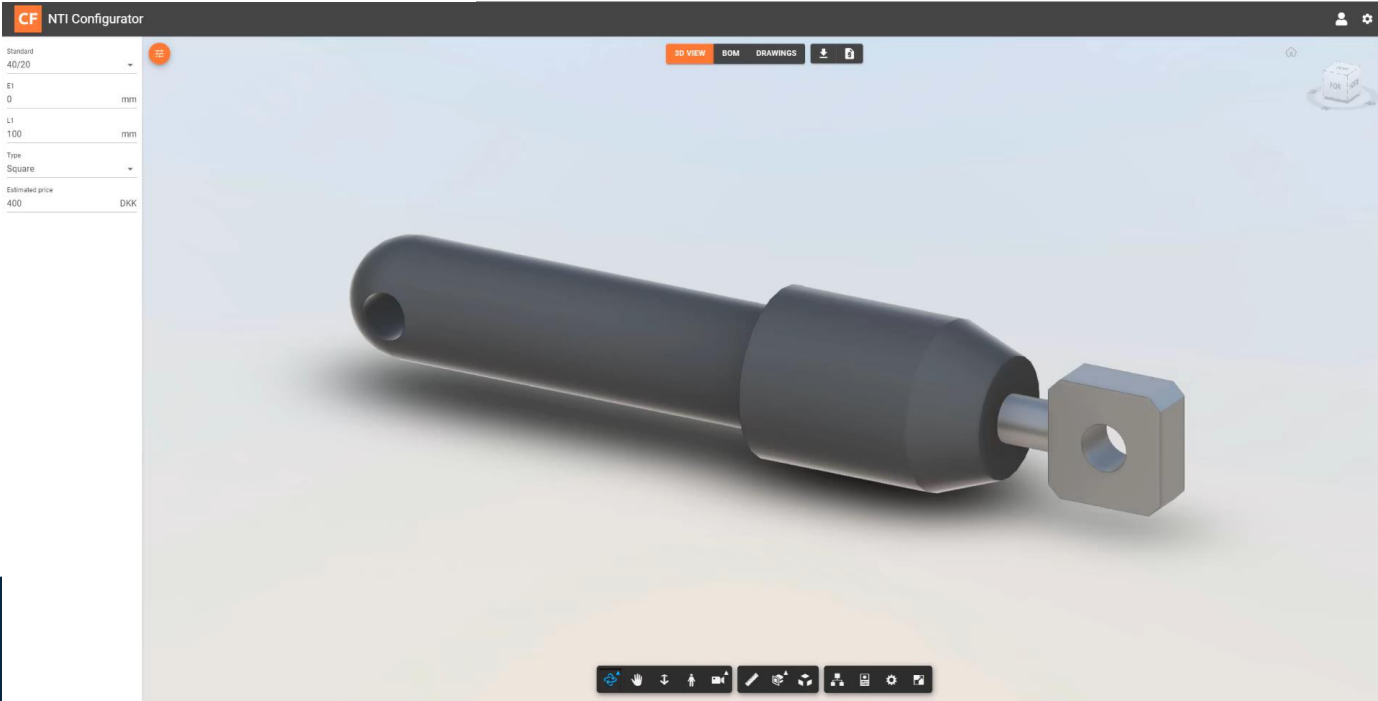
Offer Workflow actions Revert workflow action

Item Details Workflow Actions Bill of Materials (1) Relationships (0) Attachments (4) Change Log

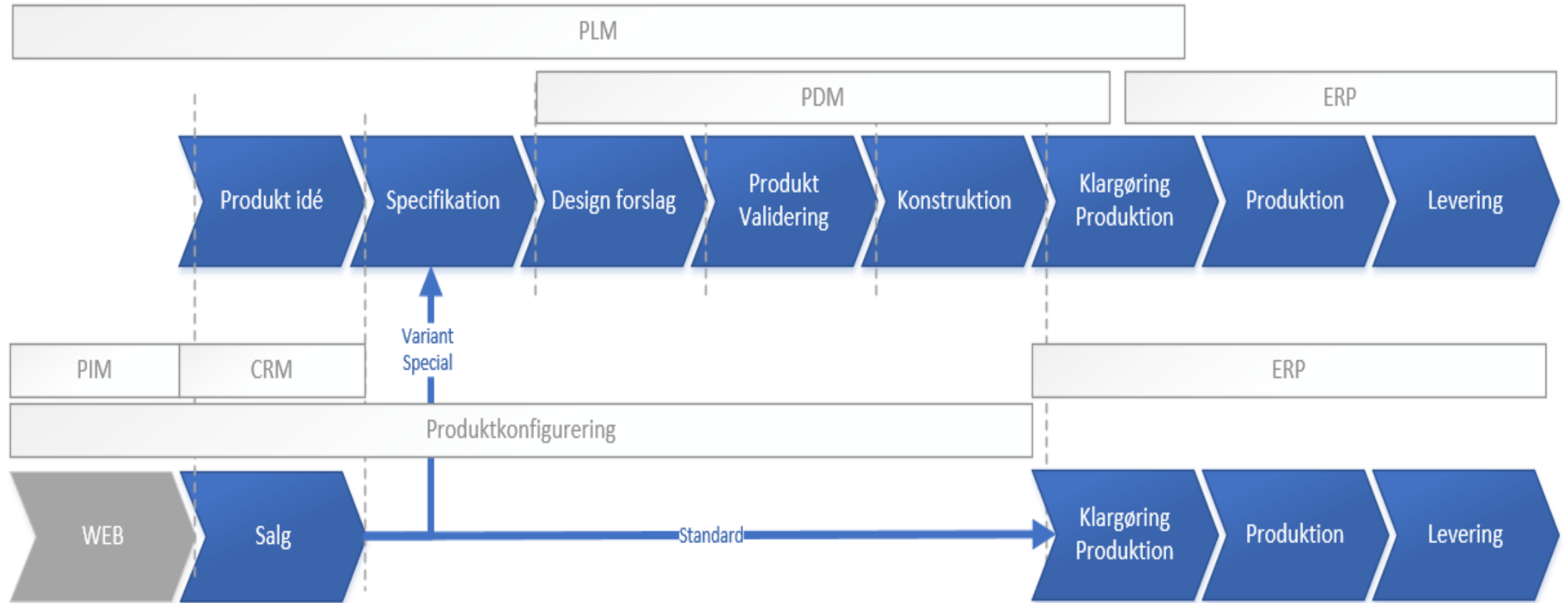
Upload Download (0) Bulk Download

Direct Attachments

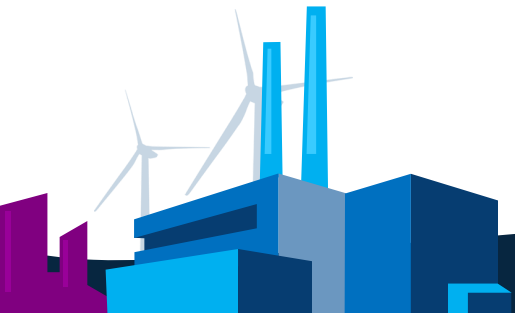
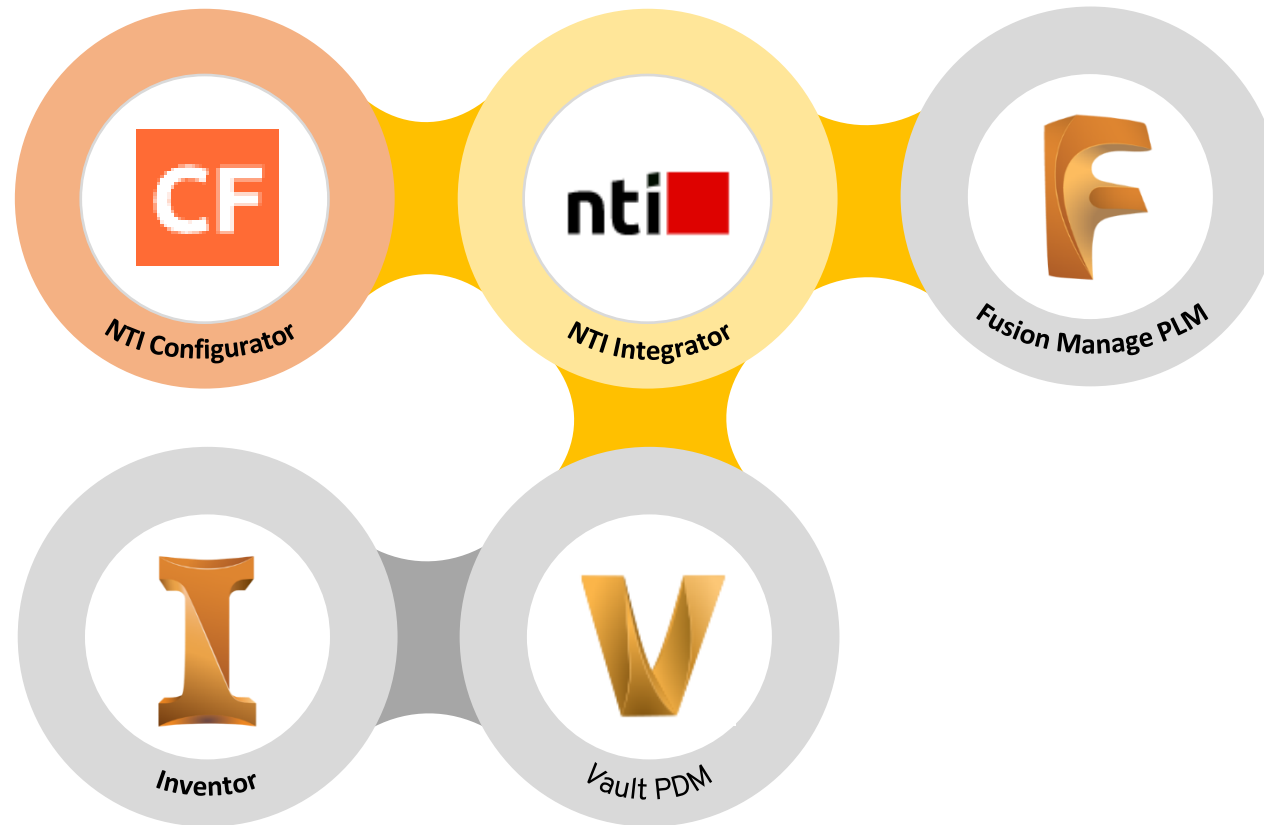
File Name ↑	Title	Ver.	Type
Calculation.Chart1.png	Calculation Chart1	1	PNG Image
Cylinder.pdf	Cylinder.pdf	1	Adobe PDF
Cylinder.step	Cylinder	1	Step 3D Model
Cylinder_3D.DWF	Cylinder_3D	1	DWF File



# Eksempel – Forretningsproces - Produkt

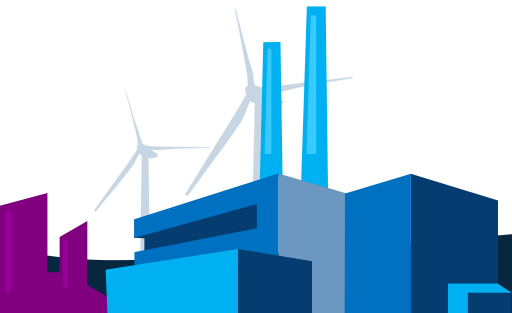
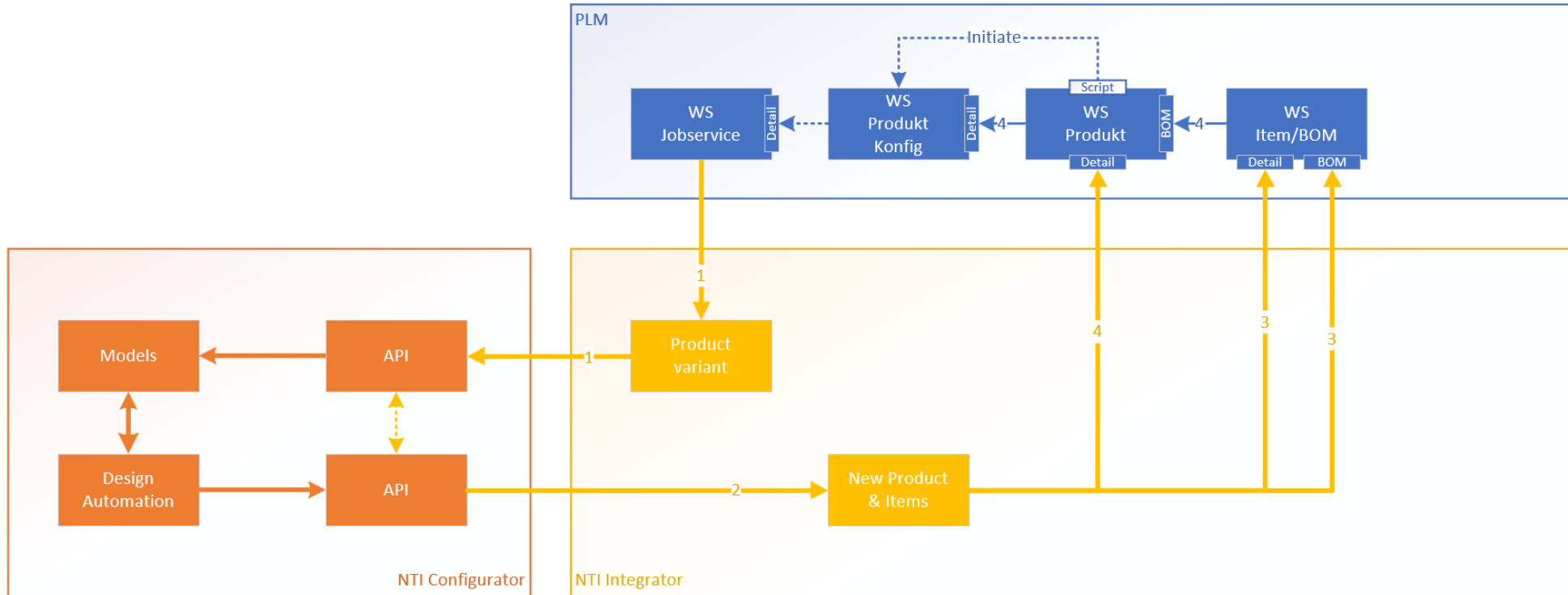


# Scenarie #2 – CLM - Produktkonfigurering

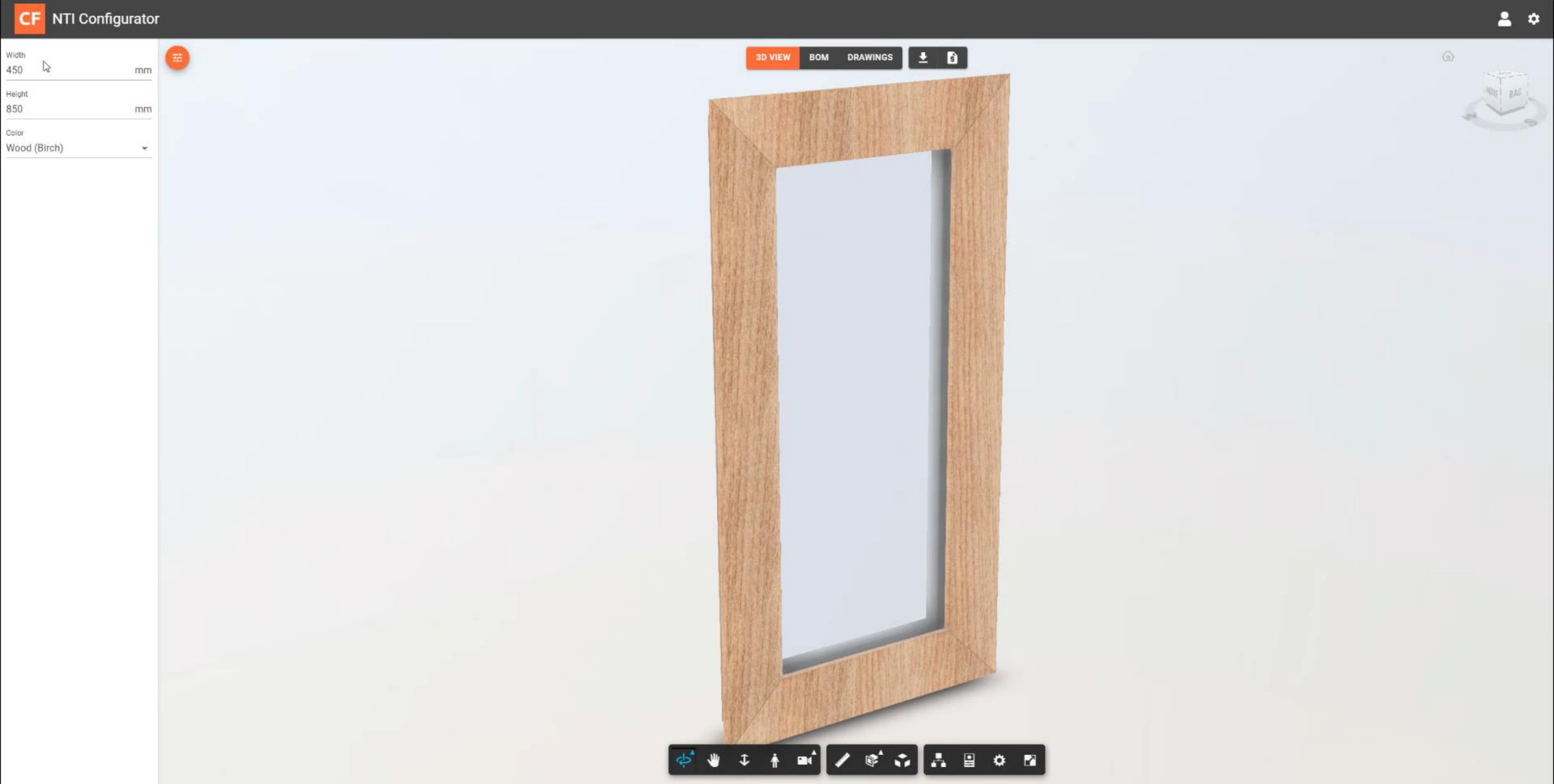




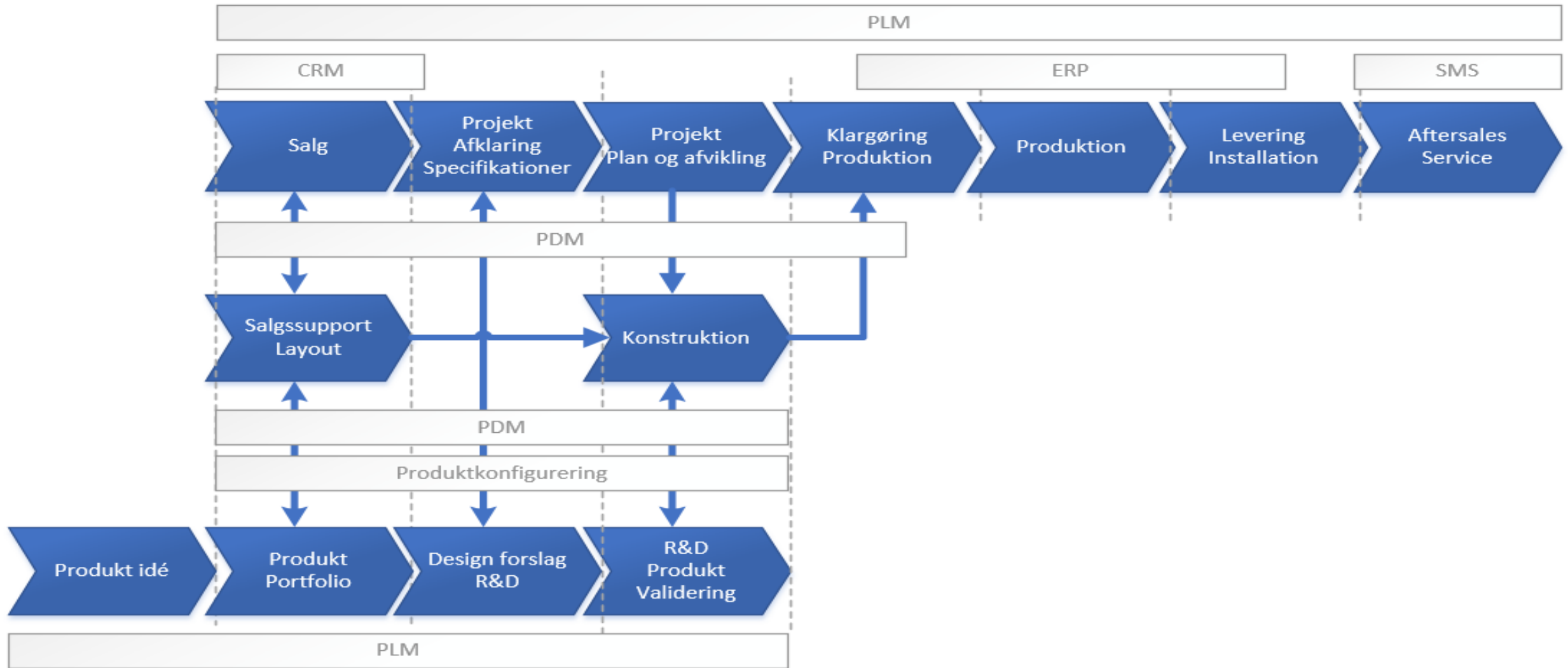
# Scenarie#2 - Teknisk



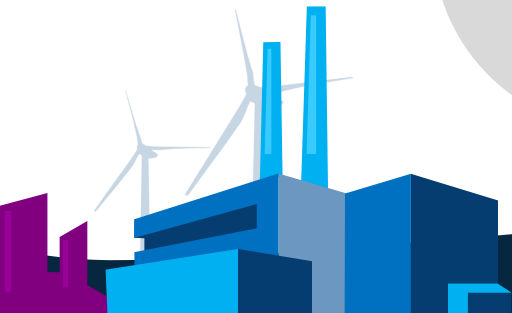
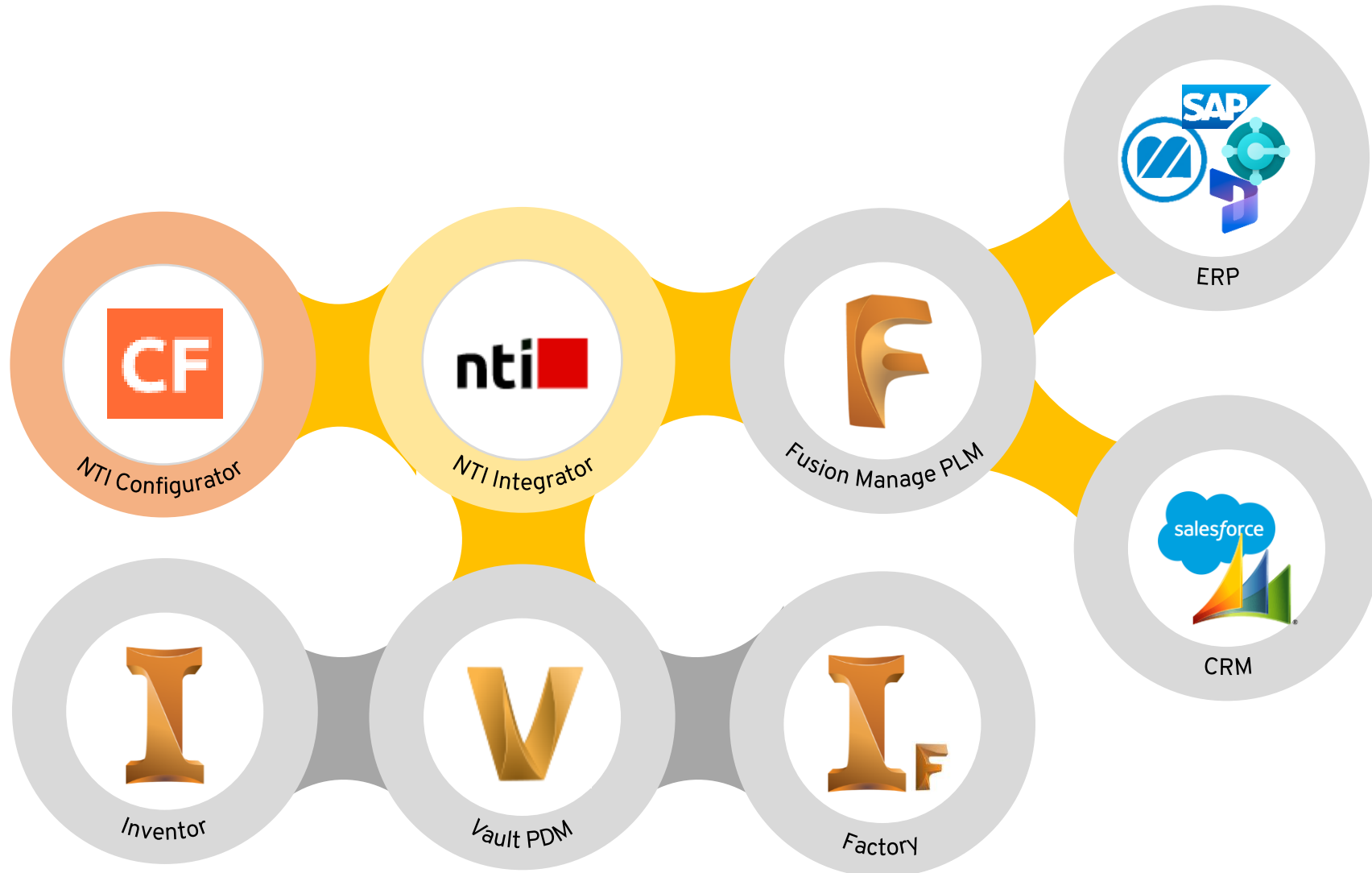
# Scenarie - Teknisk



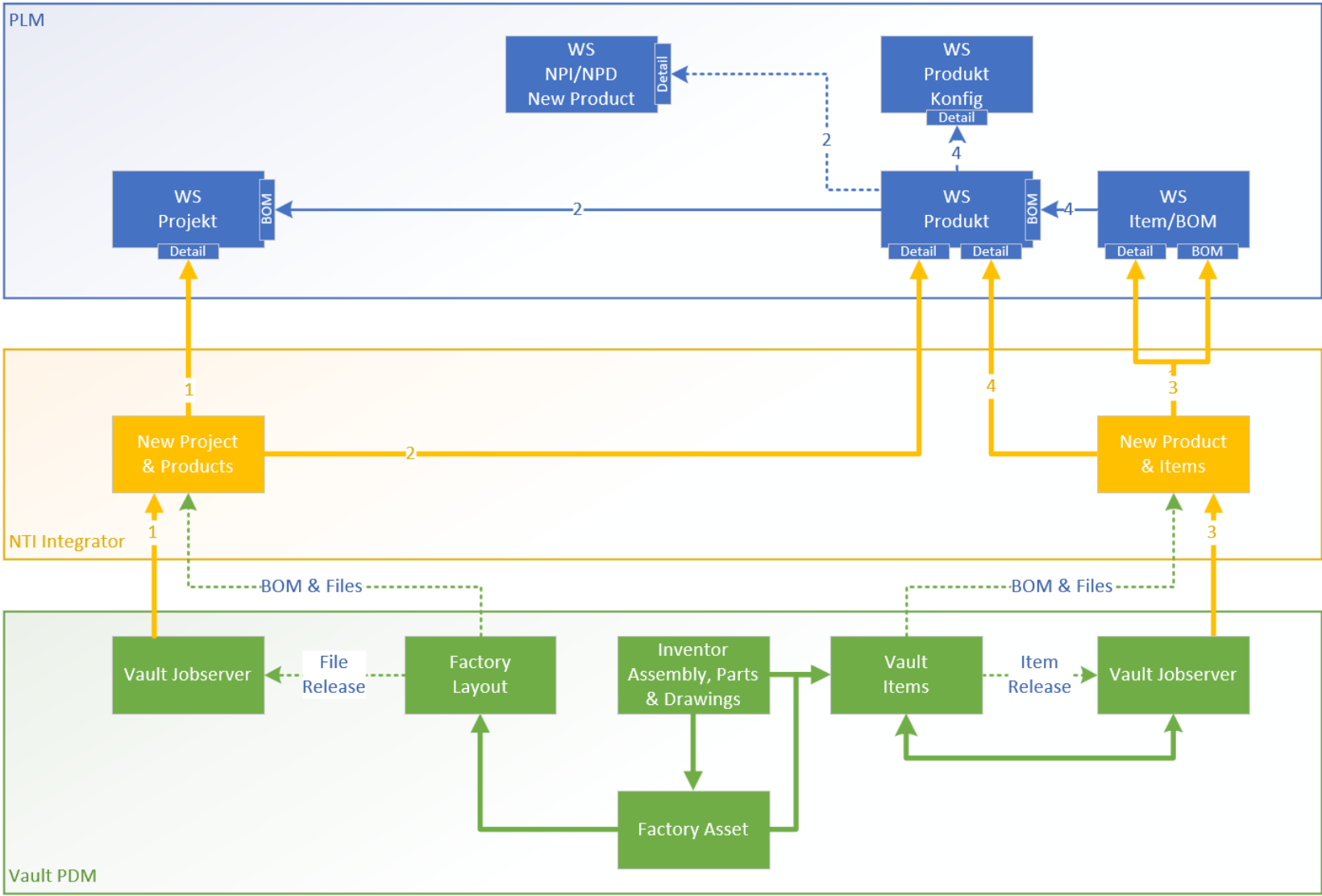
# Eksempel – Forretningsproces – Projekt/Produkt



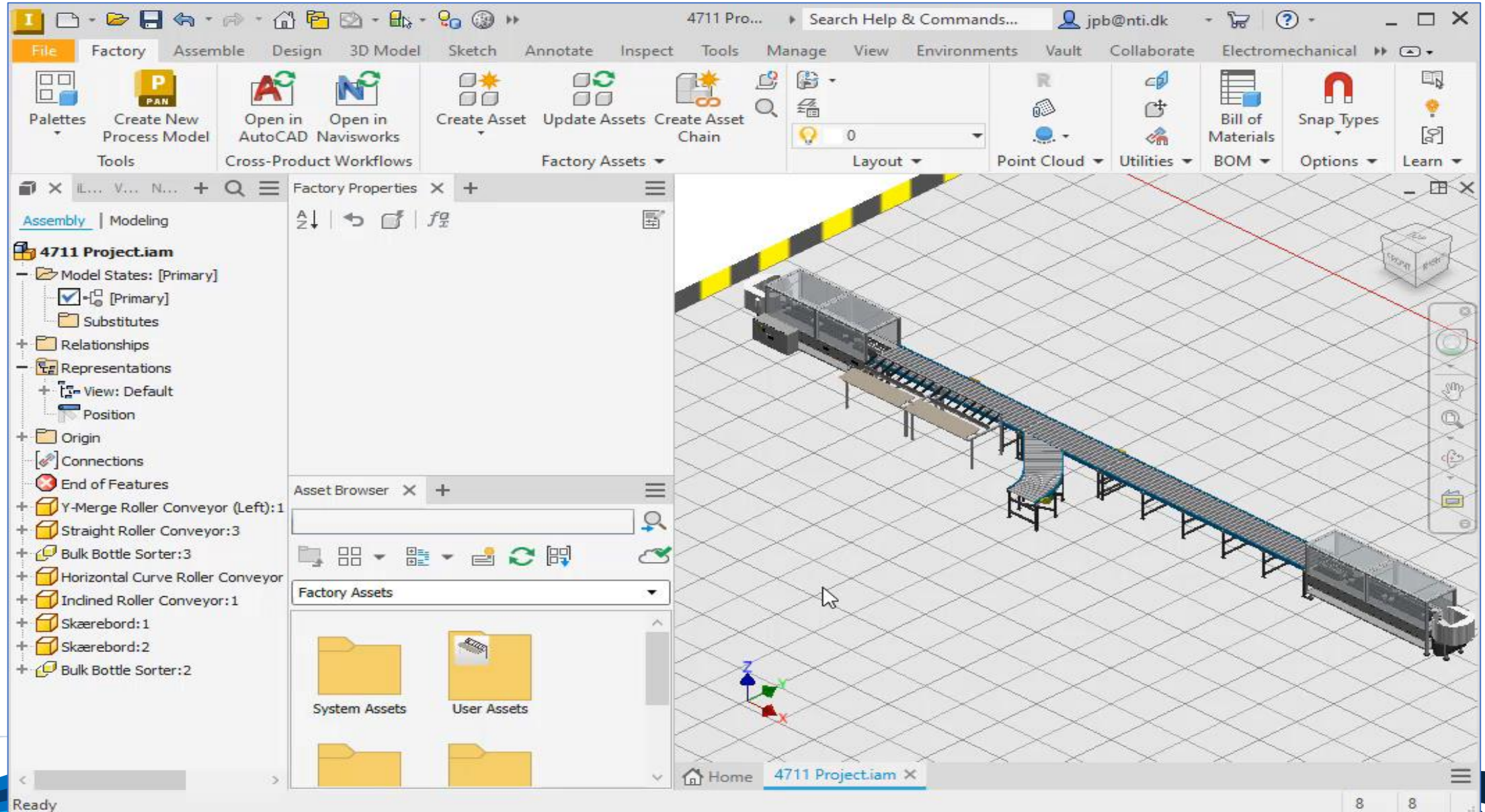
# Scenarie #3 – CLM – Produkt/Projekt konfigurering



# Scenarie - Teknisk



# Layout med simple assets i Factory





# Overfør Layout til PLM

nti

Search for...

☒ Only in this workspace

Home > Products

Compact View

Products (11)

11 out of 11 total records in this view being displayed.

 AUTODESK

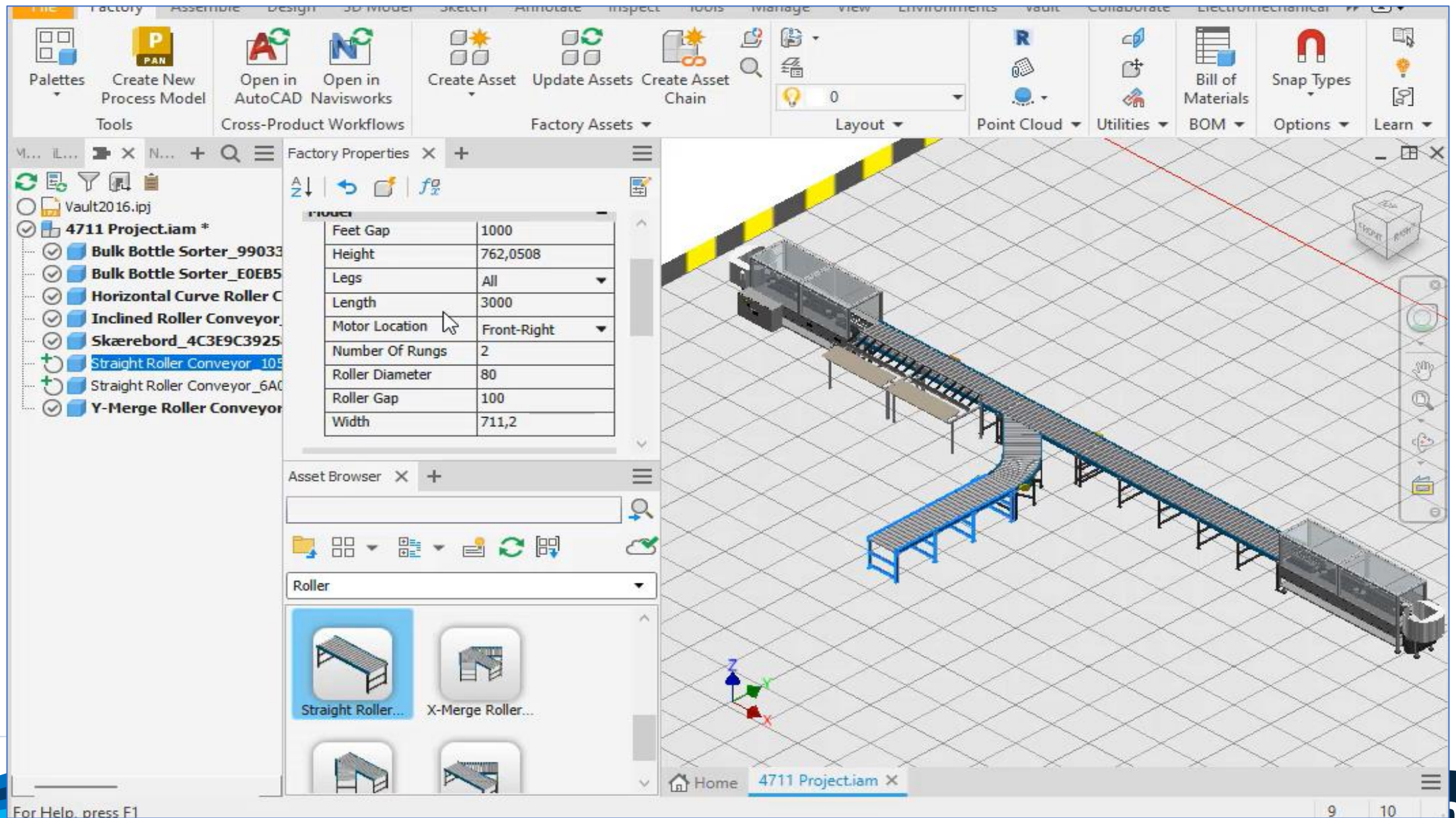
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AUTODESK Fusion 360 Manage

nti



# Tilret Layout i Factory






# Opdater Layout i PLM

nti








Search for...

☒ Only in this workspace



Home > Products

Straight Roller Conveyor-3000 - Straight Roller Conveyor



Requirements Definition

Workflow actions ▾

Revert workflow action ↶

Details

Bill of Materials (0)

Tasks & Deliverables (0)

Approval Workflow

Attachments (0 | 1)

More +

Edit

Details (1 of 4)

Number

Straight Roller Conveyor-3000


Title

Straight Roller Conveyor

Description

Straight Roller Conveyor-3000

Image




Product Features (2 of 4)


Product Type

Product Master

Task Template

 AUTODESK

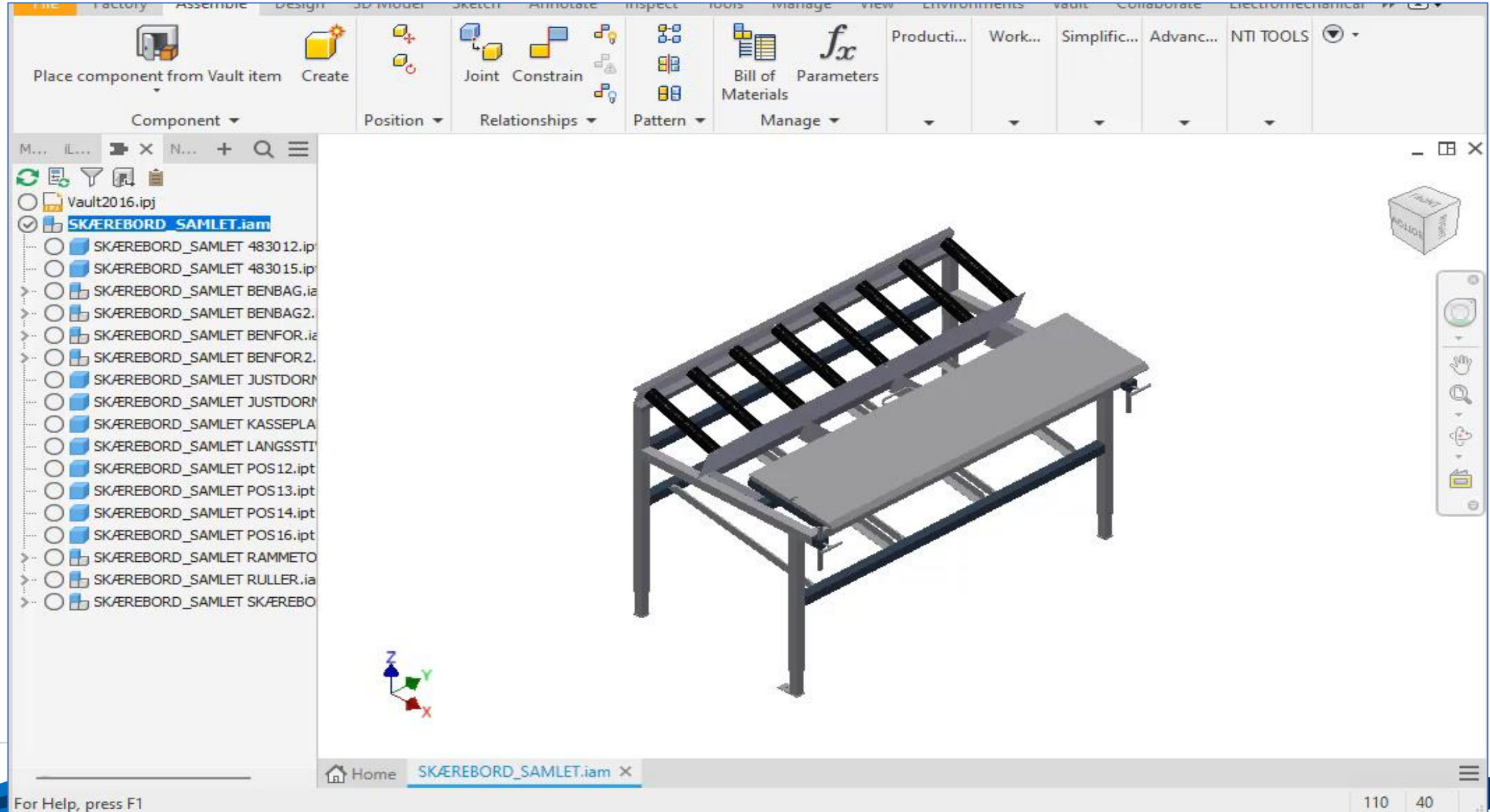
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 AUTODESK Fusion 360 Manage

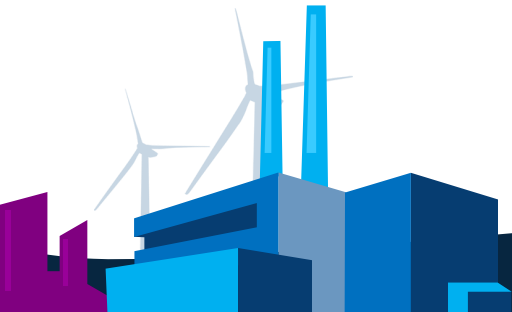
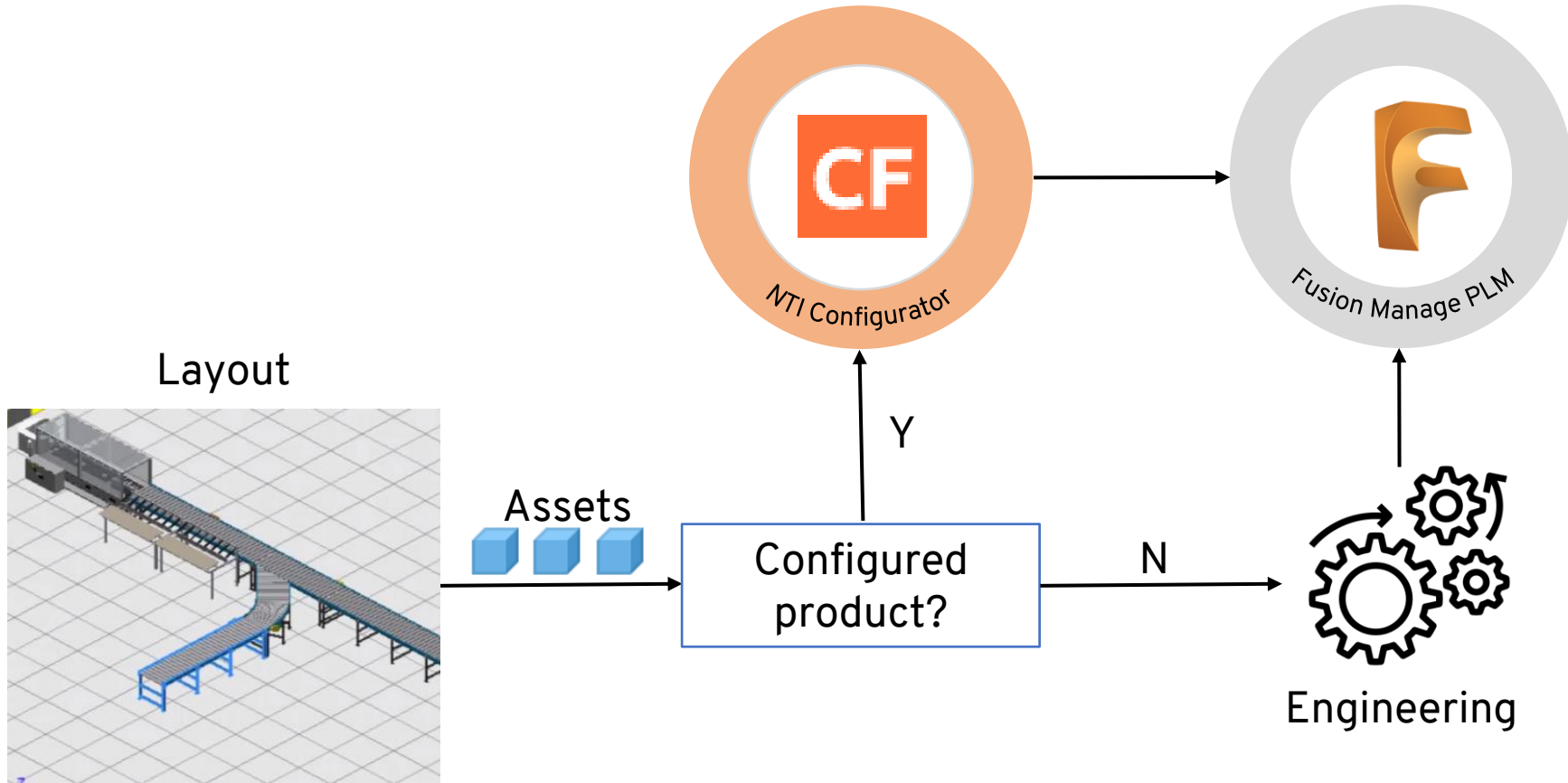
nti



# ETO konstruktion fra Inventor/Vault til PLM Projekt

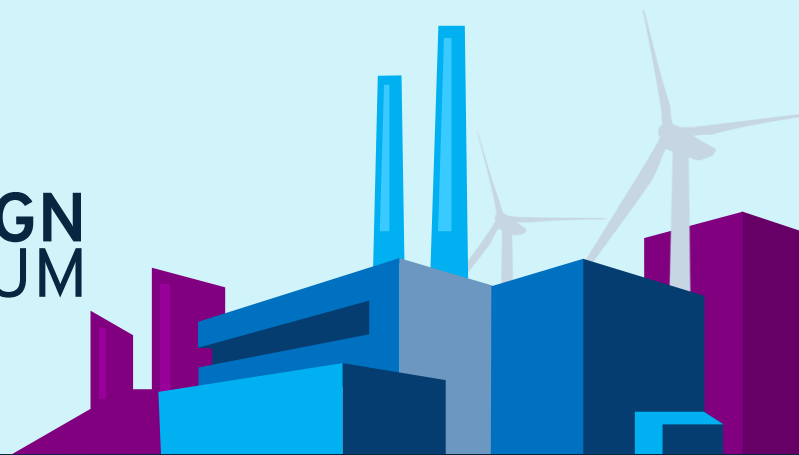


# Konfiguration af Variant Conveyor



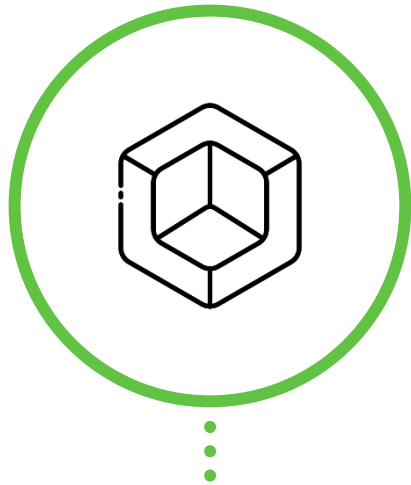


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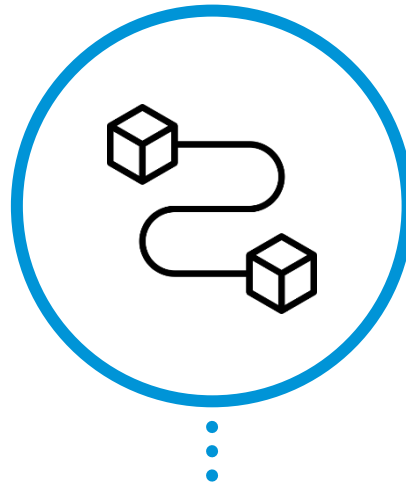
**I gang med konfiguration**

# Vurdering, behov og modenhed



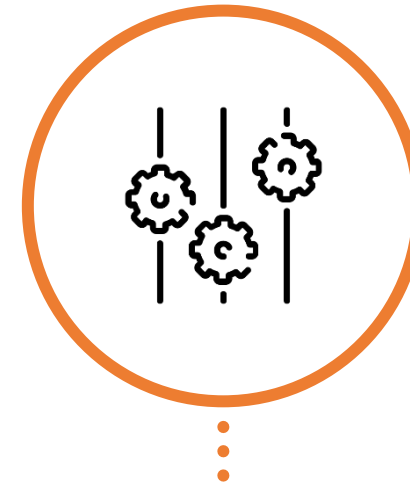
## Produkt data validering

- 3D-CAD data (strukturer)
- Metoder & Metadata
- Regler & viden
- Standardisering



## Data management

- Data strukturer & workflow
- Automatik
- Integration
- Systemer

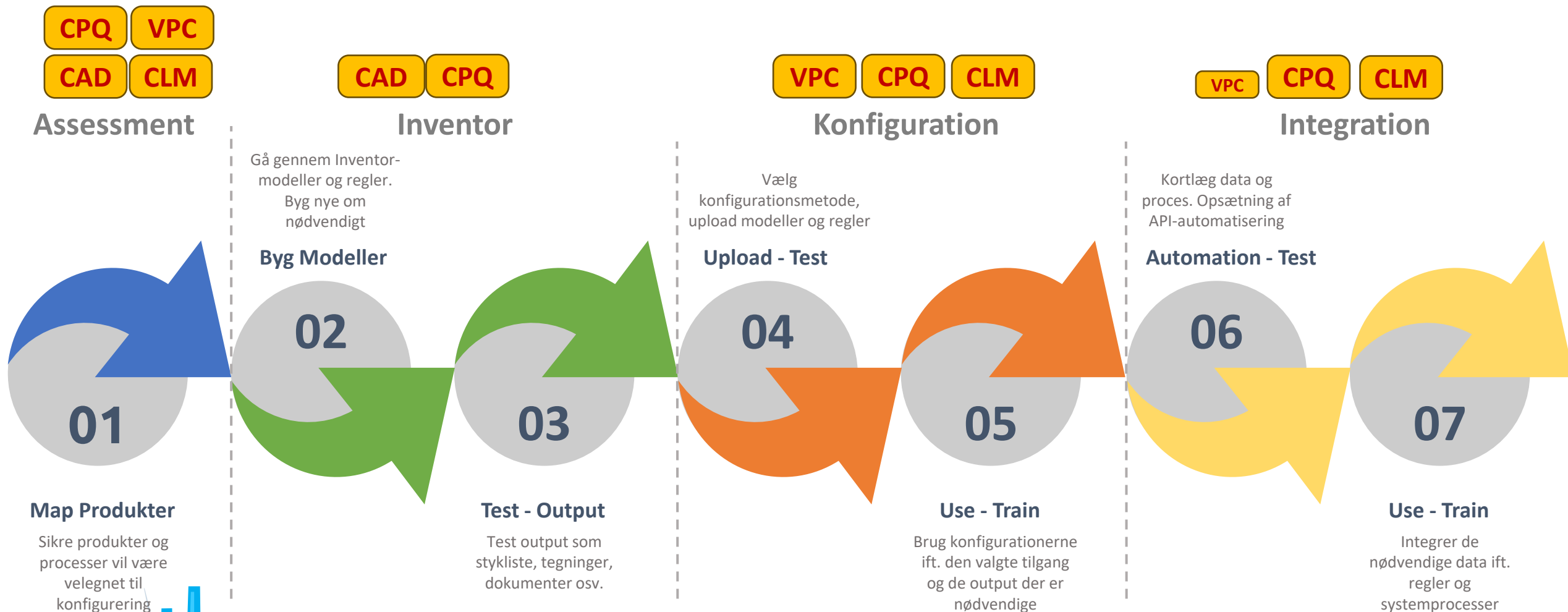


## Configurations metode

- Product Management (Integrated)
- Engineering Configuration
- Salgs Configuration (internal)
- Salgs Configuration (external)



# Typisk Implementering RoadMap





# Tak for deltagelsen

- Prøv selv på vores hjemmeside
- online NTI CONFIGURATOR
- <https://www.nti.biz/produkter/nti-produkter/nti-configurator/>

- Tag gerne fat i vores konfigurationsteam



Morten



Poul



Jesper

