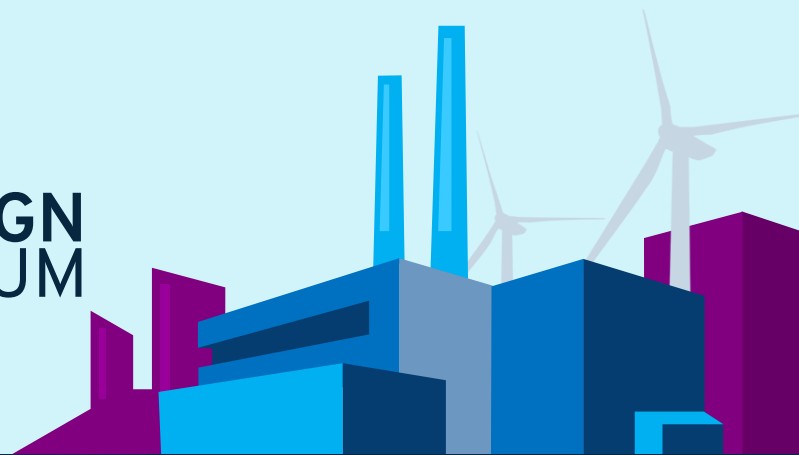




2024
INDUSTRI&DESIGN
FORUM



FØLG PROJEKT DATA I HELE PROCESSEN

Skab projektoverblik ved levering af
CTO/ETO-maskiner og anlæg

VELKOMMEN DAGENS TEAM



Industry Product Manager

Morten Benner Rolsgaard

mbr@nti-group.com



Customer Engagement Manager

Jesper Prip Brandt

+45 76 42 41 07
jpb@nti-group.com





INDHOLD

Introduktion

Setup, hvad indgår i præsentationen

Præsentationer

I gang med integrerede projekt data

Q & A

INTRODUKTION

Trends i Industrien

Data ø'er

TIDENS INDUSTRI TRENDS

3D benyttes endnu mere **som databærer** og platform for design og simulering, i hele produktets livscyklus



Digitale tvillinger af de fysiske produkter og projekter, benyttes udstakt over hele processen, fra afklaring til maintenance og EOL



Augmented Intelligence (AI), spiller en stadig større rolle, hvor bl.a. optimering af alt fra design til produktion og vedligehold kan identificeres



Bæredygtighed er i fokus hos mange, også hvordan de forskellige krav kan honoreres bl.a. i forhold til udledning, længere produktlevetid, optimering af drift, osv....



Øget opmærksomhed på cloud og API'er. Vi ser at en **digital omstilling**, hvor data er integrerede i forretningen, gør at virksomheder er mere tilbøjelige til at nå og overgå deres forretningsmål



BUSINESS DRIVERS



Standardisering

Formålet er at sikre kvaliteten, pålideligheden og sammenhængen af produkter og tjenester, der leveres til kunderne, samtidig med at det reducerer omkostningerne, øger effektiviteten, reducerer risikoen for fejl og forbedre sikkerheden i processen.



Vækst

Realiseringen af forretningsudvidelse og stabilitet gennem øget salg, omsætning, rentabilitet og styring af omkostninger samt markedsandel og/eller position på markedet.



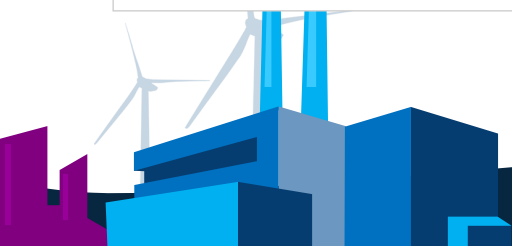
Effektivitet

I hvor høj grad en organisation kan levere deres varer og ydelser med optimal ressourceudnyttelse. Herunder sikre at der arbejdes hensigtsmæssigt og bedst muligt på tværs af virksomhedens afdelinger.



Innovation

Gøre det muligt for forretningen at samarbejde om at, ville udvikle både produkter og forretning, anvende nye teknologier og realisere værdi ved at bringe nye produkter på markedet på en smartere og hurtigere måde.



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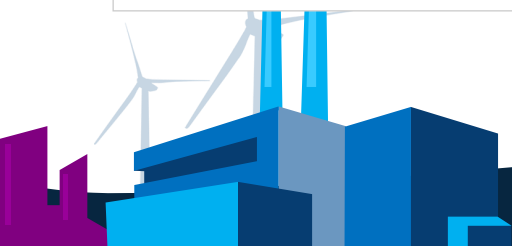
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Innovation

Gøre det muligt for forretningen at samarbejde om at, ville **udvikle** både produkter og forretning, anvende **nye teknologier** og realisere værdi ved at bringe nye produkter på markedet på en **smartere** og **hurtigere** måde.



NTI KONCEPTER

Vores koncepter tager udgangspunkt i de **forretningsresultater**, som du kan opnå med vores teknologi.



NTI arbejder med en bred vifte af virksomheder på tværs af **mange brancher** og markeder i hele verden



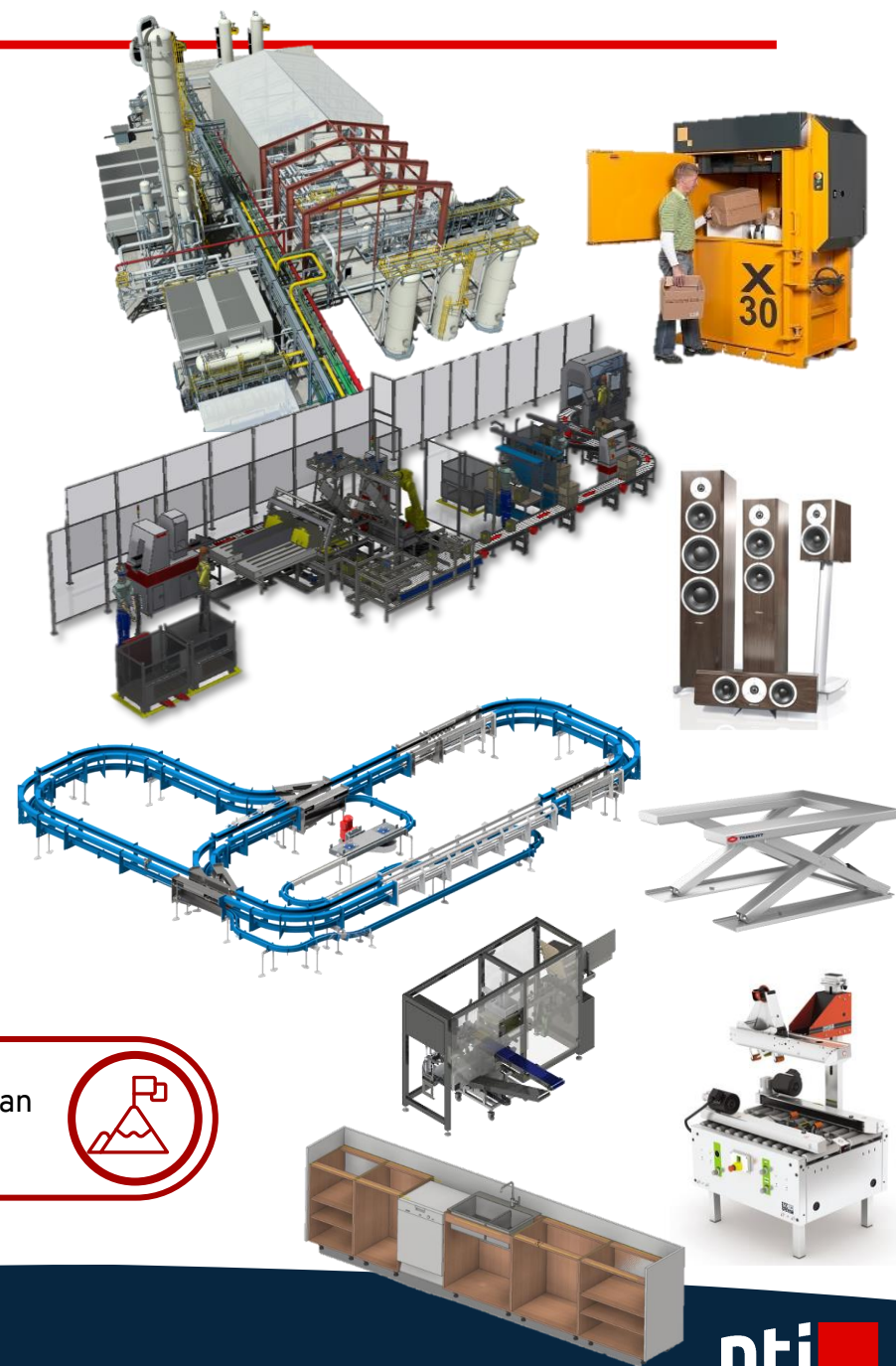
Hver virksomhed er unik, og adskiller sig i forhold til andre. Det er et vitalt mål at kunne understøtte det **unikke** med vores **løsningskoncepter**.



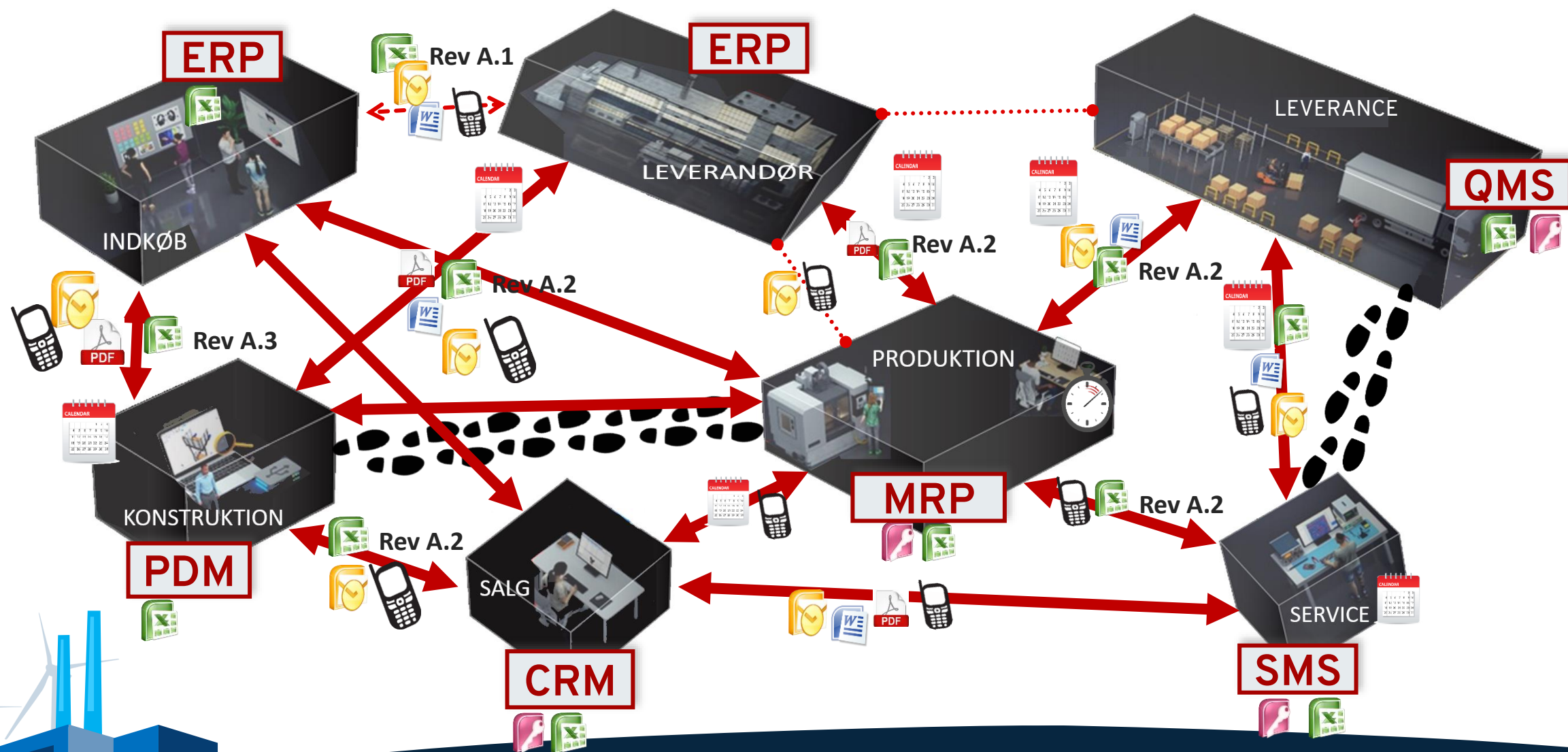
Nye **trends og tiltag** i industrien **understøttes** i en stepvis tilgang, så de rigtige indsatser passer til virksomhedens nuværende niveau og efterfølgende ønsker



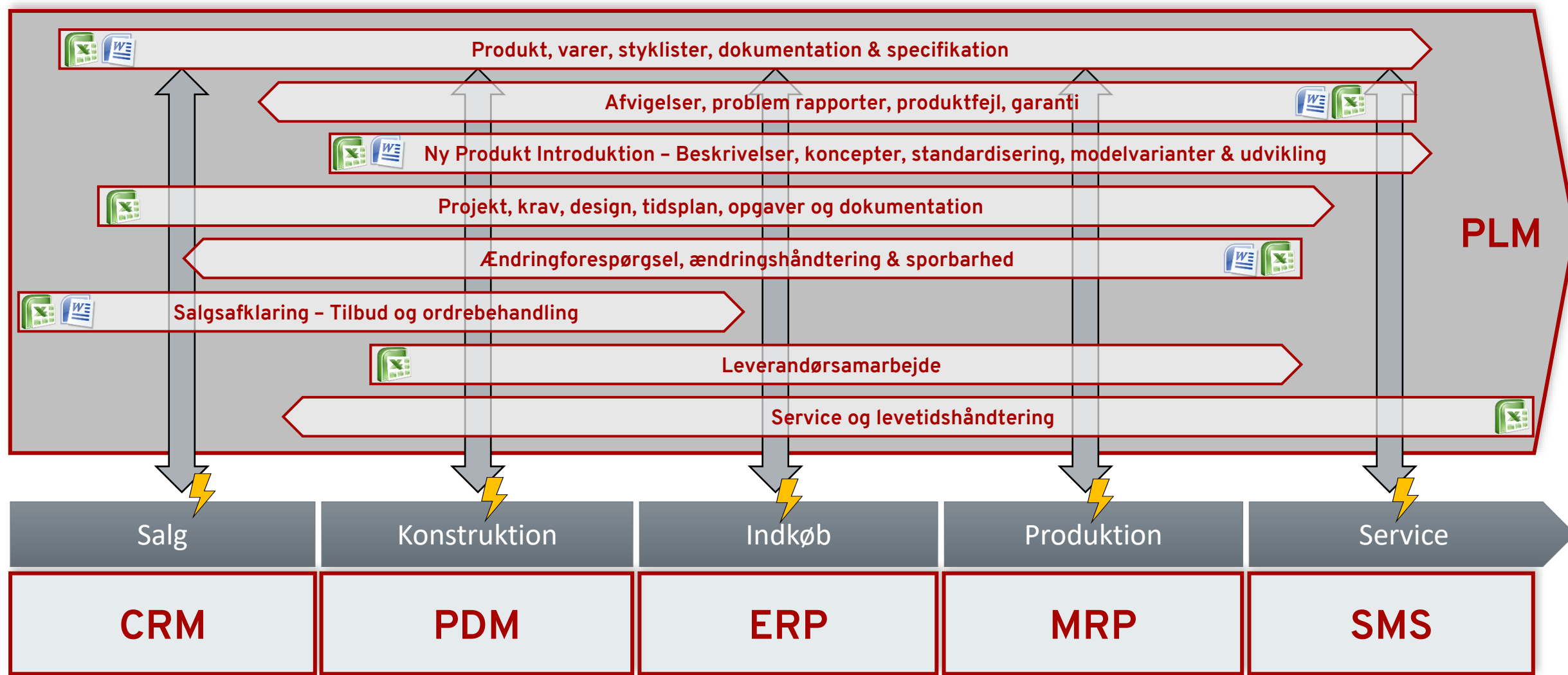
Uanset virksomhedens størrelse og nuværende tilgang, vil vores koncepttilgang tage højde for hvordan vi sammen implementerer **ny teknologi med empati for forretningen**, driften og de nye muligheder.



FORSKELLIGE TYPER AF DATA-ØER



EN MULIG INTEGRERET DATA TILGANG



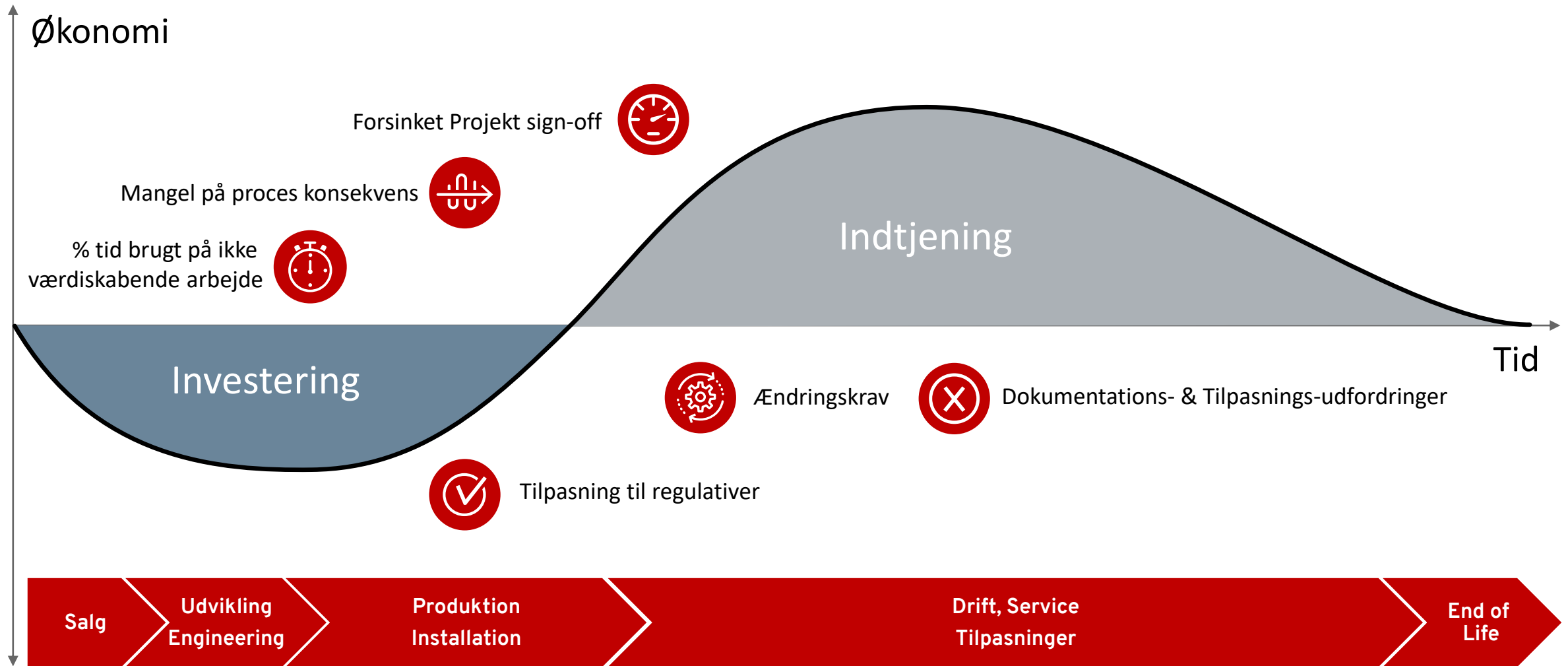
Data Standard

Data Workflow

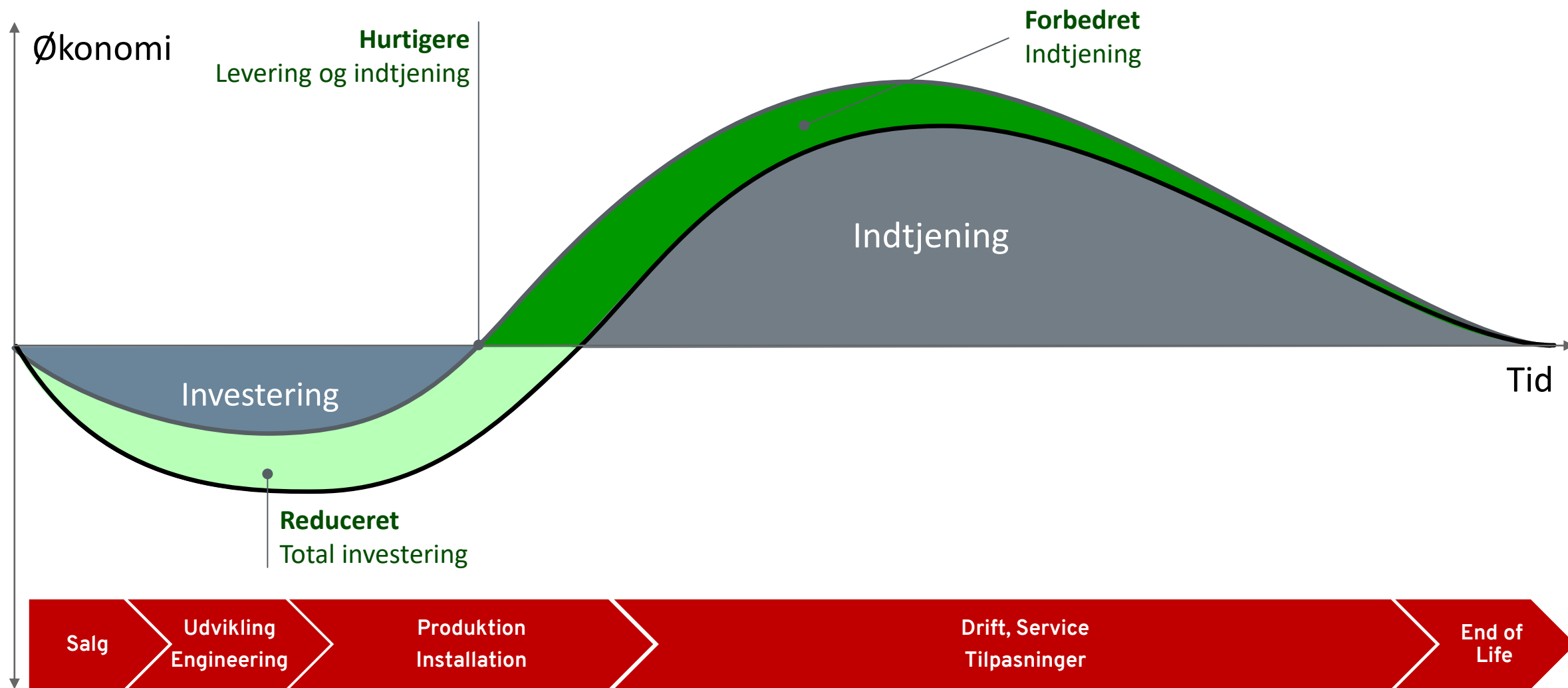
Data Automatik

Data Integration

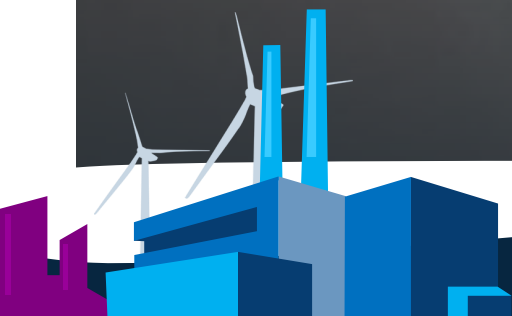
ØKONOMISK PROJEKT LIVSCYKLUS



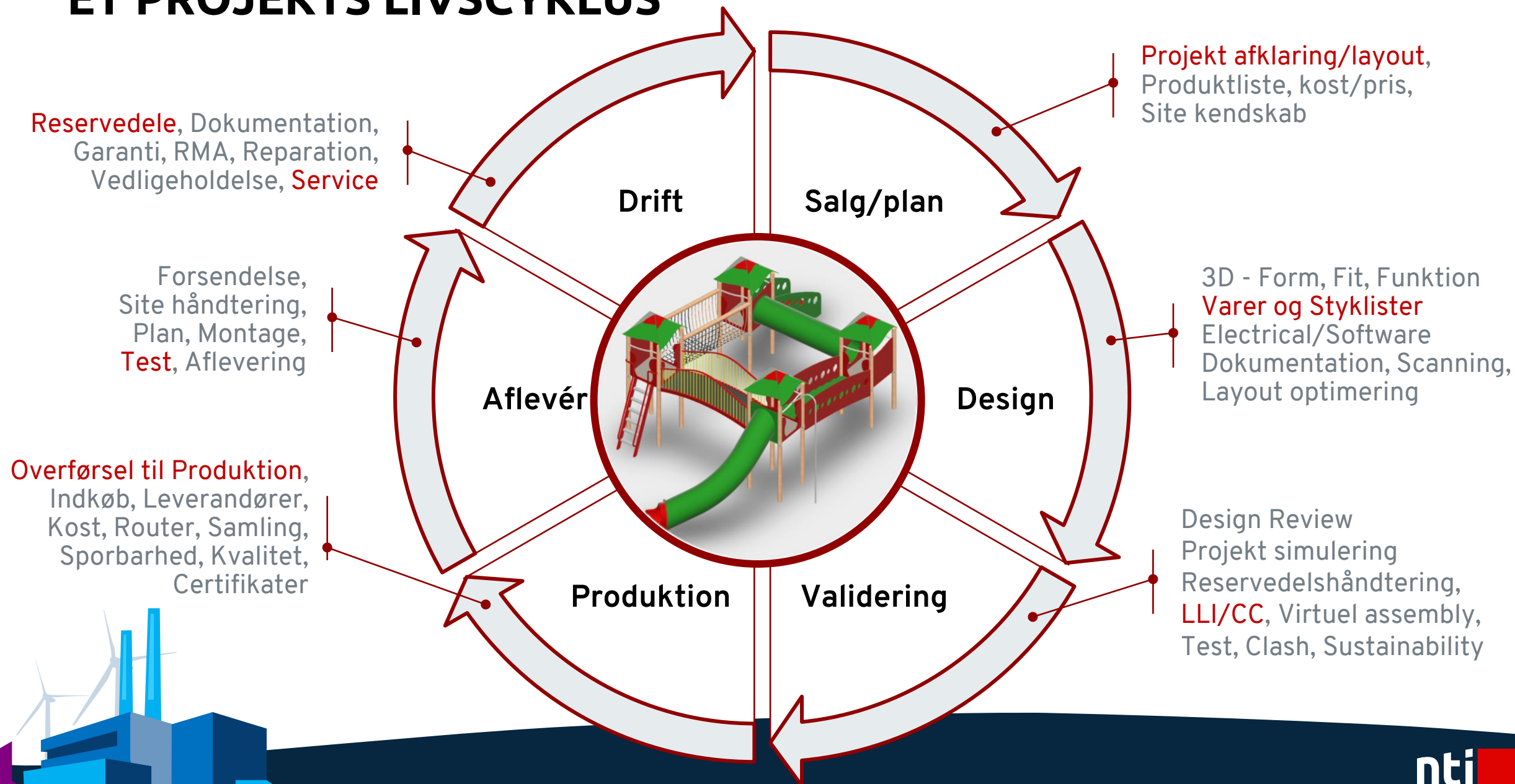
MULIG FORTJENESTE VED FORBEDRET DIGITAL PROCES ?



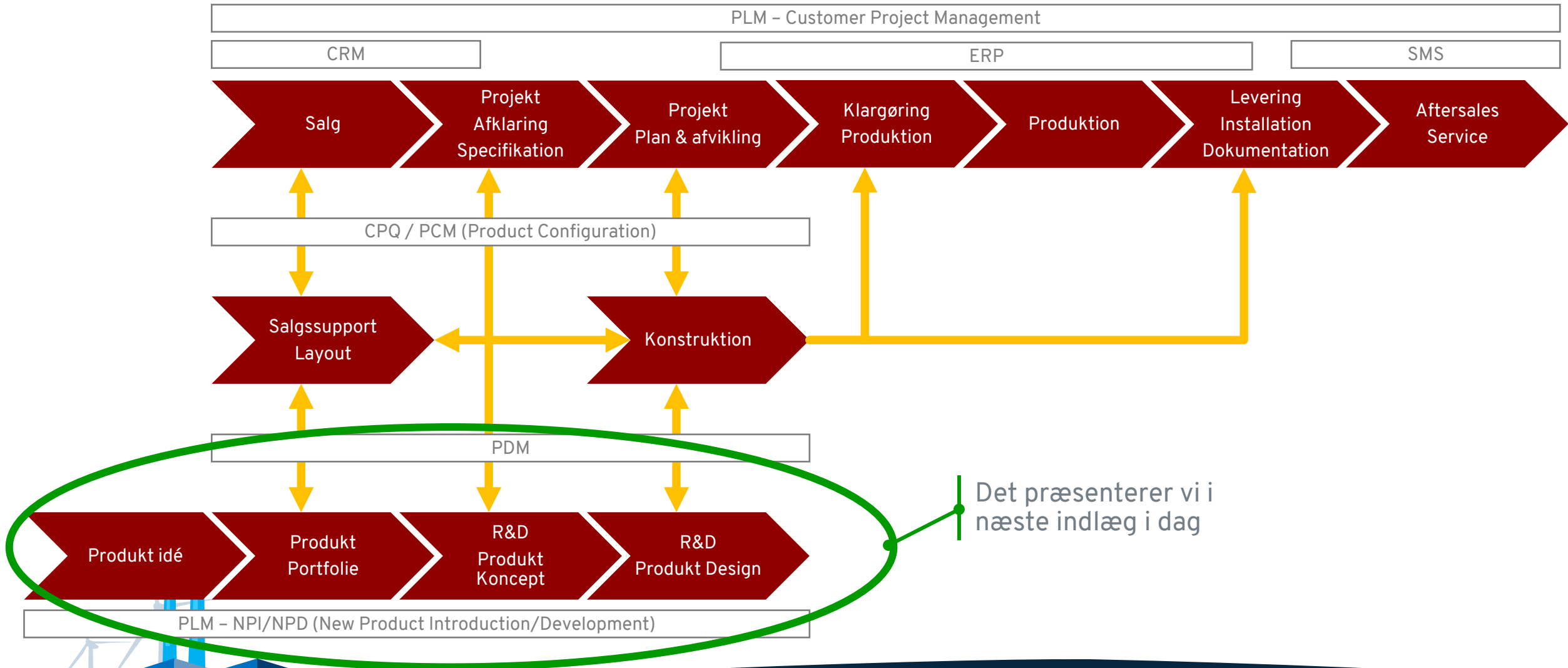
PRAESENTATIONS SETUP



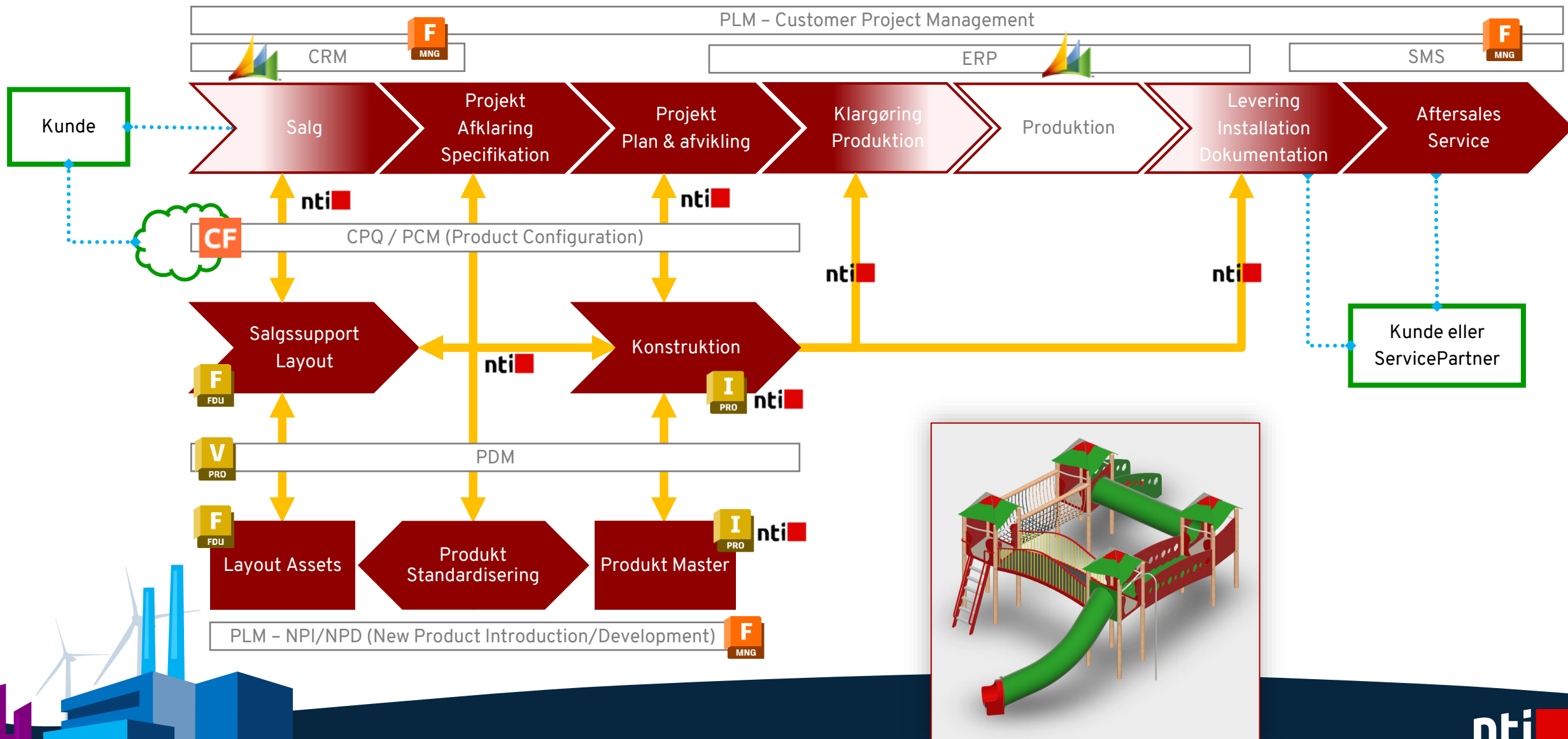
ET PROJEKTS LIVSCYKLUS



EKSEMPEL PÅ PROJEKT PROCES

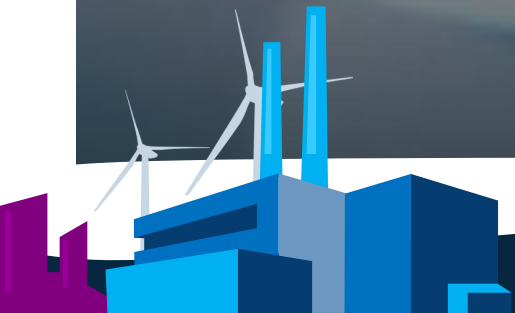


DET PROJEKT SETUP VI VIL VISE





PRAÆSENTATIONER



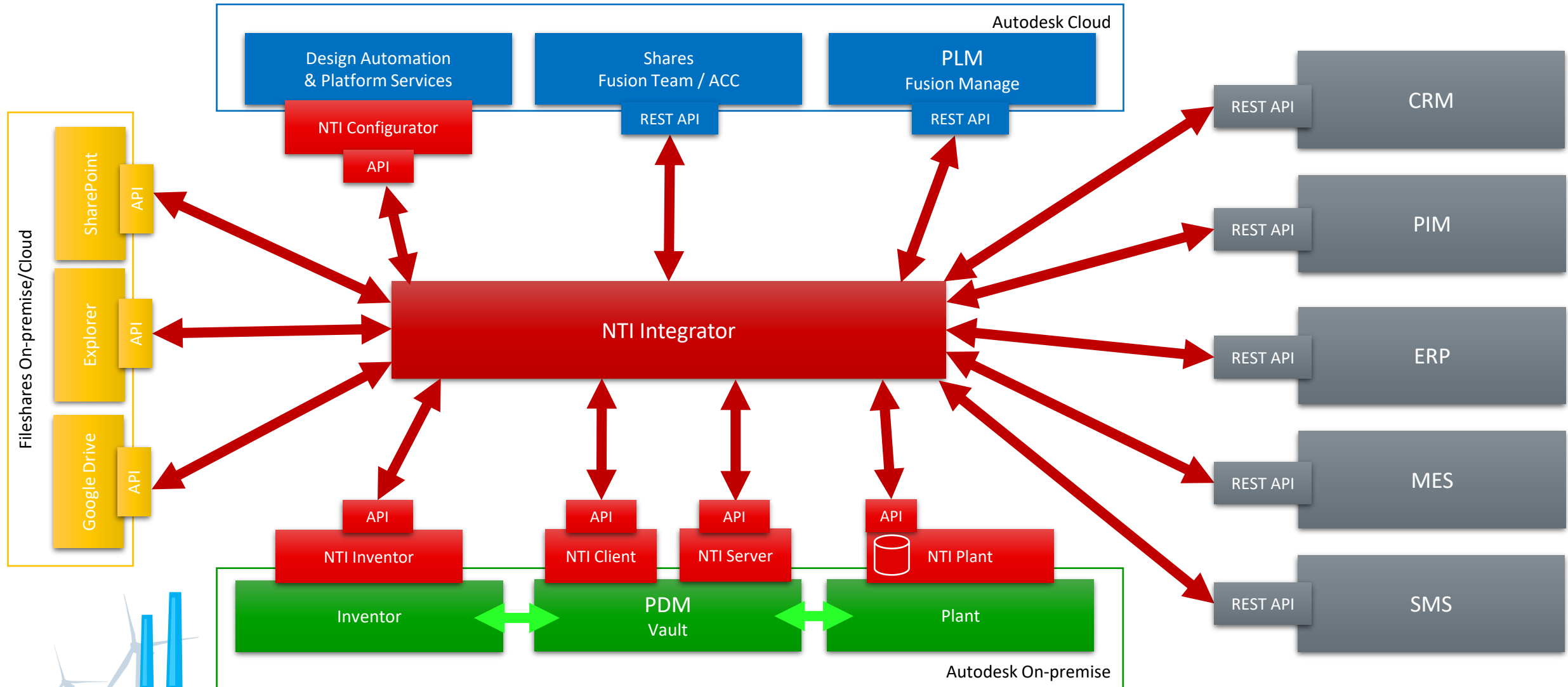


DATA AUTOMATIK & INTEGRATION

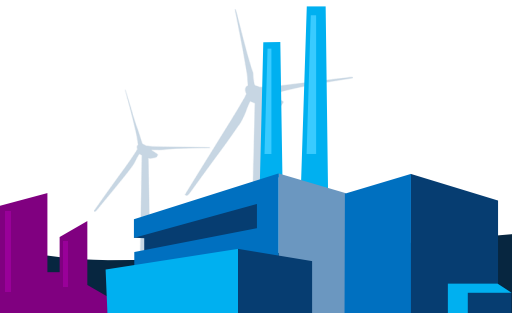
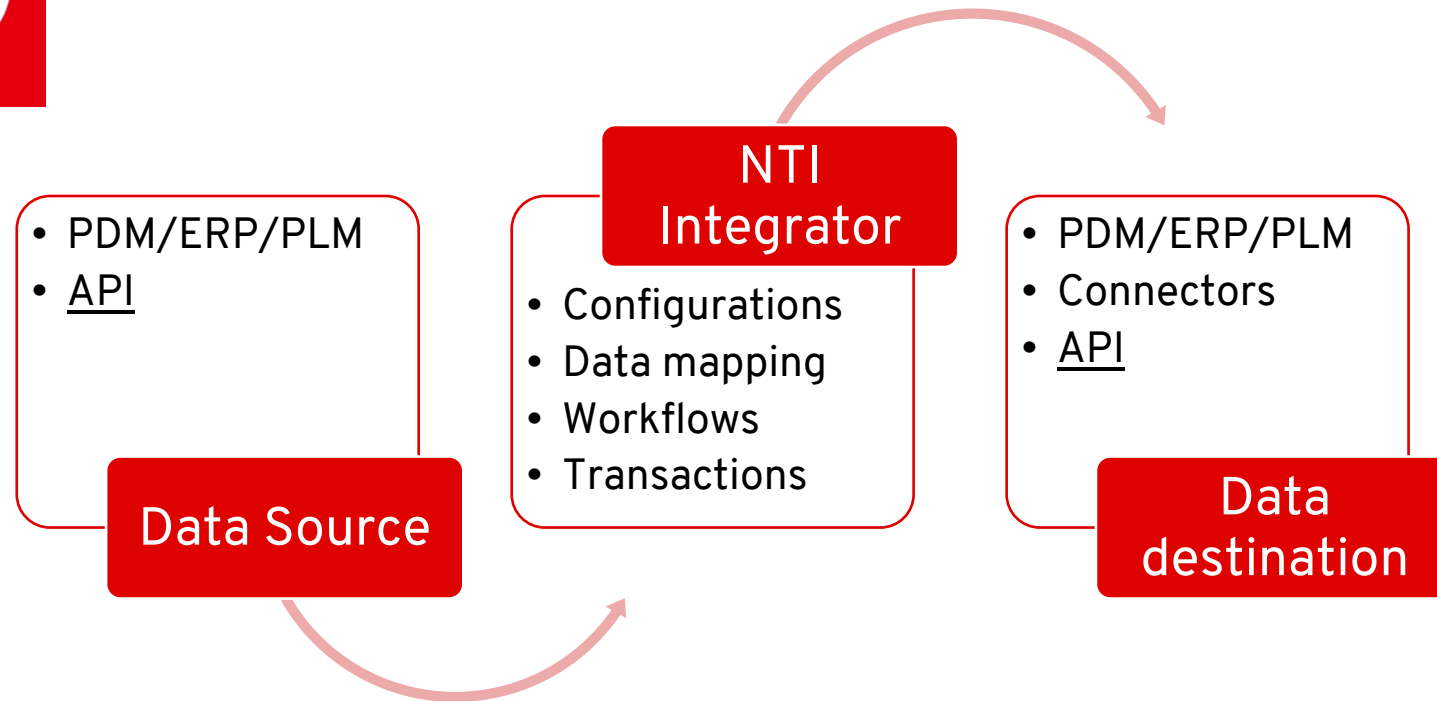
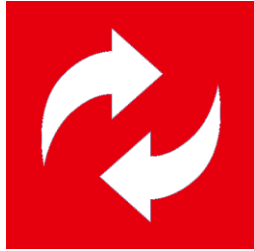
Hvordan kobles systemer sammen



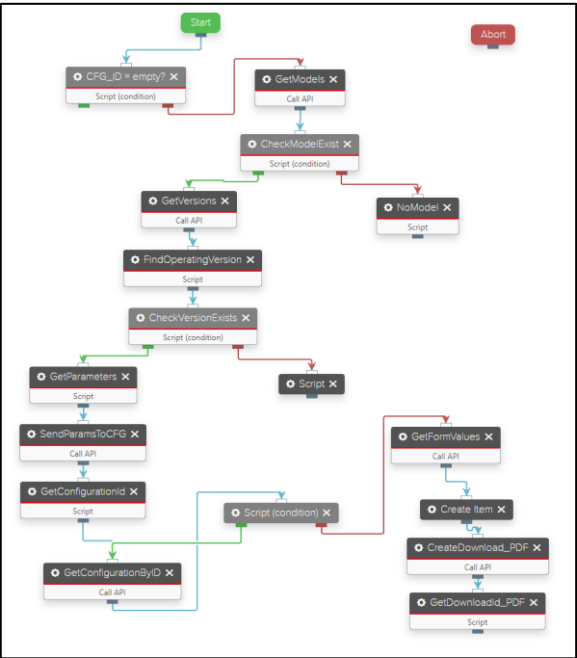
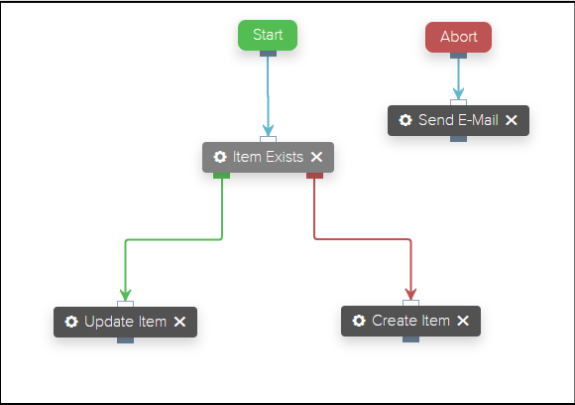
SYSTEM INTEGRATION



NTI INTEGRATOR - GENERELT



NTI INTEGRATOR - GENERELT



Article Properties									
Active	Name	Datatype	Max Length	Transfer Mode	Source Property	Allow Empty	Default Value	Values	Converter
<input checked="" type="checkbox"/>	Configuration ID	String	200	Always	ConfiguratorID	<input checked="" type="checkbox"/>			JavaScript
<input checked="" type="checkbox"/>	Description	String	0	Always	Description (Item,CO)	<input checked="" type="checkbox"/>	No description		JavaScript
<input checked="" type="checkbox"/>	Number	String	200	Always	ItemNum	<input type="checkbox"/>			JavaScript
<input checked="" type="checkbox"/>	Product Category	String	0	Always	Product Category	<input checked="" type="checkbox"/>			JavaScript
<input checked="" type="checkbox"/>	Thumbnail	String	0	Always	Thumbnail	<input checked="" type="checkbox"/>			JavaScript
<input checked="" type="checkbox"/>	Title	String	0	Always	Title (Item,CO)	<input checked="" type="checkbox"/>	No title		JavaScript

Actions

API

Database

Directory

File

Global

Workflow

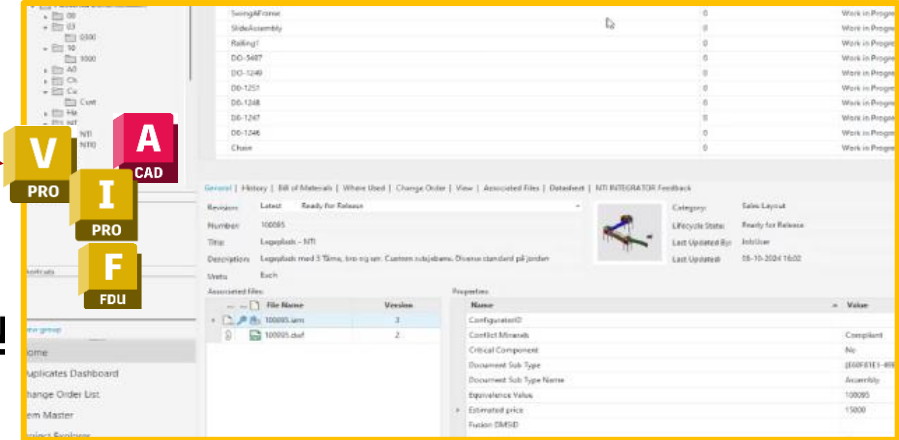
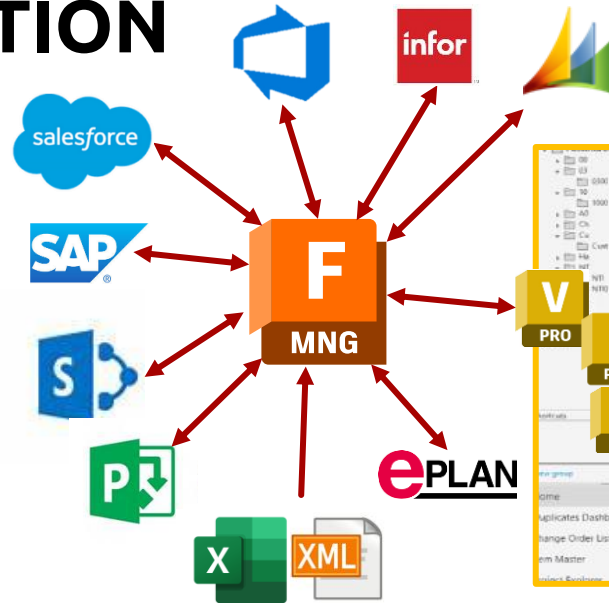
`{.js}`
JavaScript



EDM/PDM/PLM INTEGRATION

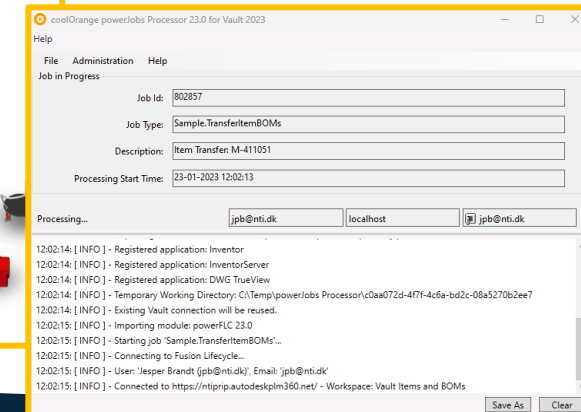
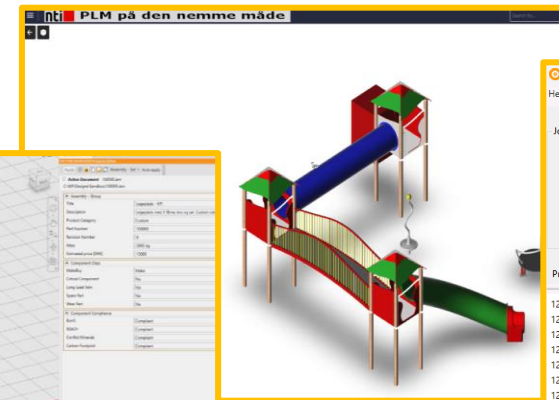
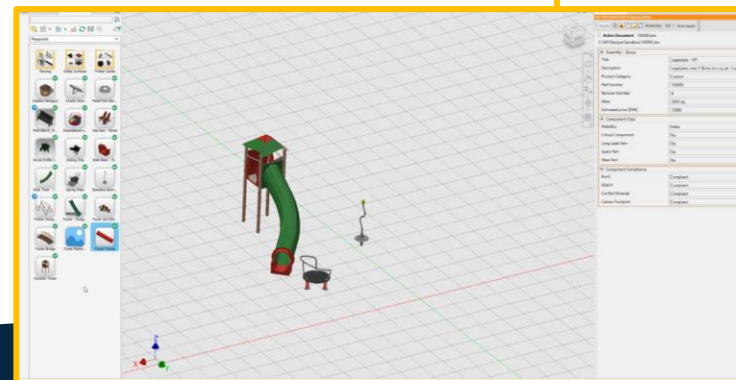
Vi viser

- Release i Design proces
- Property Data integration
- Automatisk vare-nummering
- Automatisk revisions-kontrol
- Automatisk dokument publish
- Rettigheder og adgangs-control
-



Relation til CAD/PDM/PLM

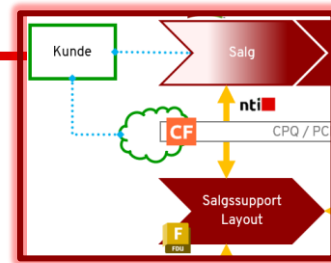
Automatik via
Proces & Jobhandler



SALGS LAYOUT

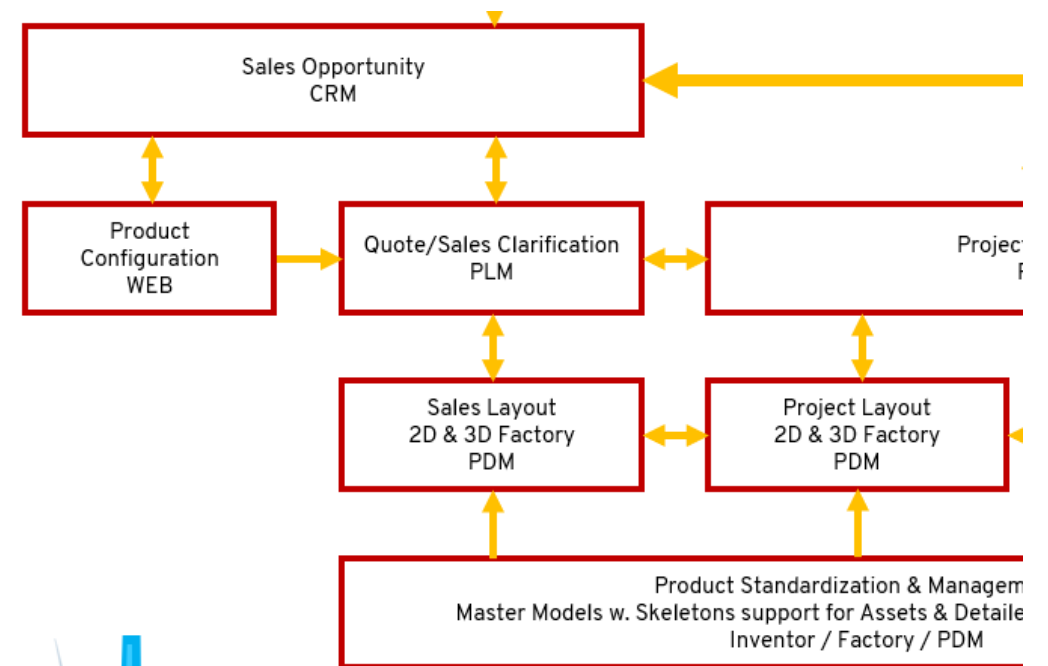


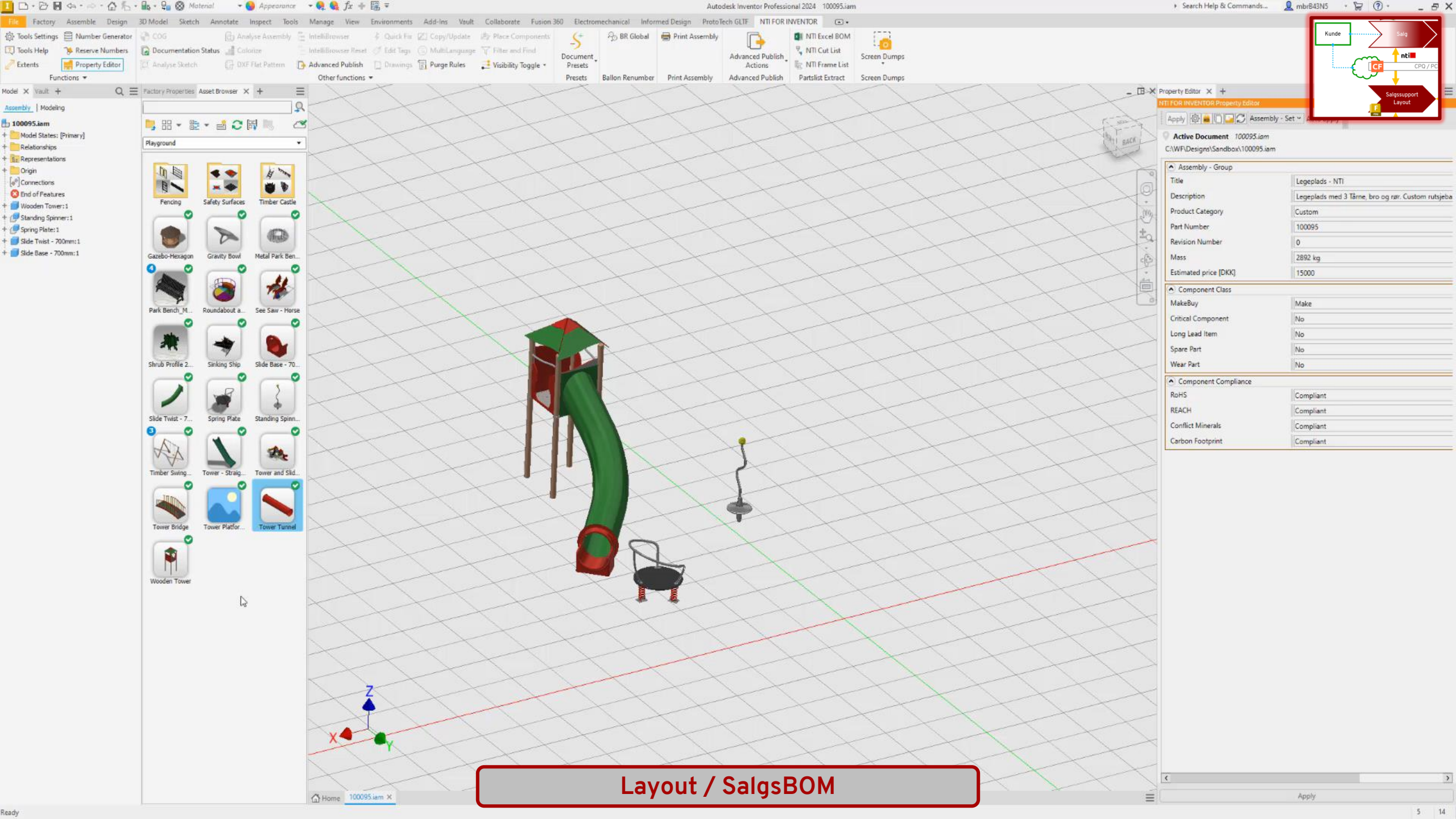
SALGSLAYOUT - PRODUKTLISTE TIL SALG



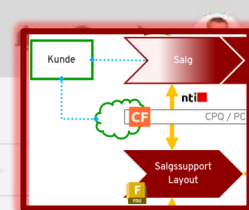
⚙️ Vi viser

- Layout m. Assets til Salgs Produkt BOM
- Konfiguration af Produkter fra Layout (CPQ)
- Produkt/Vare/Komponent klassificering (Standard/Variant/Special)
- Salg RFQ m. afklaring
- Integreret salgsproces
- En del af gateproces
data videregives til projekt ved ordre
-





Layout / SalgsBOM



Home > Sales Q...

+

Al... ▾

Item Descrip... ▾	Customer ▾	Current State ▾
RFQ000496	Sjov og Leg I/S	New
RFQ000464	Benner A/S	New
RFQ000463	Benner A/S	Order
RFQ000432	NTI Group	Order
RFQ000431	NTI Group	New
RFQ000430	NTI Group	New
RFQ000398	NTI Group	New
RFQ000397	NTI Group	New
RFQ000367	NTI Group	New
RFQ000366	NTI Group	New
RFQ000365	NTI Group	New
RFQ000364	NTI Group	New
RFQ000331	Benner A/S	Order
RFQ000298	Benner A/S	New
RFQ000265	Benner A/S	New
RFQ000234	Benner A/S	Offer
RFQ000232	Benner A/S	New
RFQ000203		New
RFQ000202		New
RFQ000201		New

50 out of 52 total records in this view being displayed.

Home > Sales Quotes (RFQ)

RFQ000496

New

Workflow actions ▾

Revert workflow action ↶

Details

Files (0 | 1)

Status

Bill of Materials (1)

Relationships (0)

Change Log

Edit

RFQ Details (1 of 5)

Number

RFQ000496

Type of RFQ

Custom Product

Customer

Sjov og Leg I/S

Contact

Jesper

Contact Email

jesper@mail.com

Initial RFQ Date

09/29/2024

Planned Close Date

10/25/2024

RFQ Comment

Ønsker hurtigt og let projekt

Preview

Terms (2 of 5)

Delivery Date

10/31/2024

Price

47,000.00

Offer Valid Until

10/01/2024

Warranty Period

12 (Month)

Payment Terms

Net 30

Terms Comment

On Order (3 of 5)

Create Project on Order

Yes

Related Project

Salg RFQ

RFQ000496

New

Workflow actions

Revert workflow action

Details

Files (0 | 1)

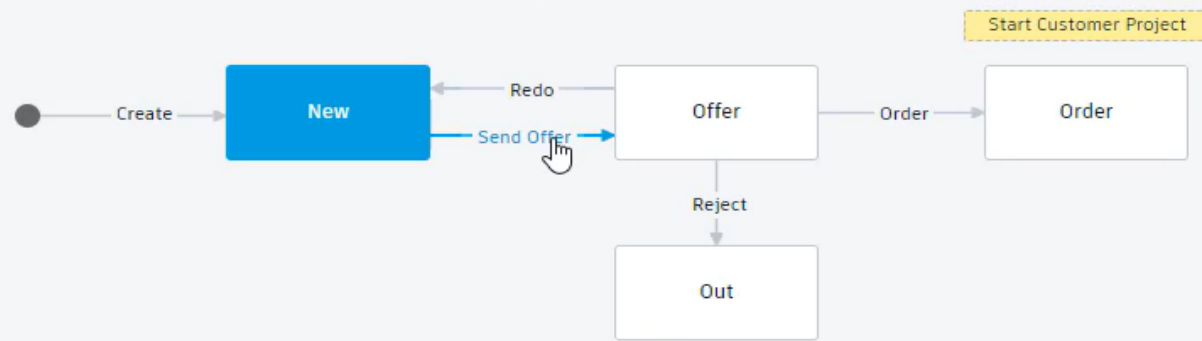
Status

Bill of Materials (1)

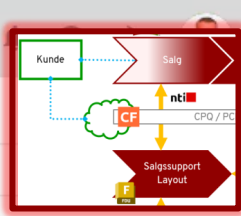
Relationships (0)

Change Log

WORKFLOW HISTORY (7)



Salg RFQ



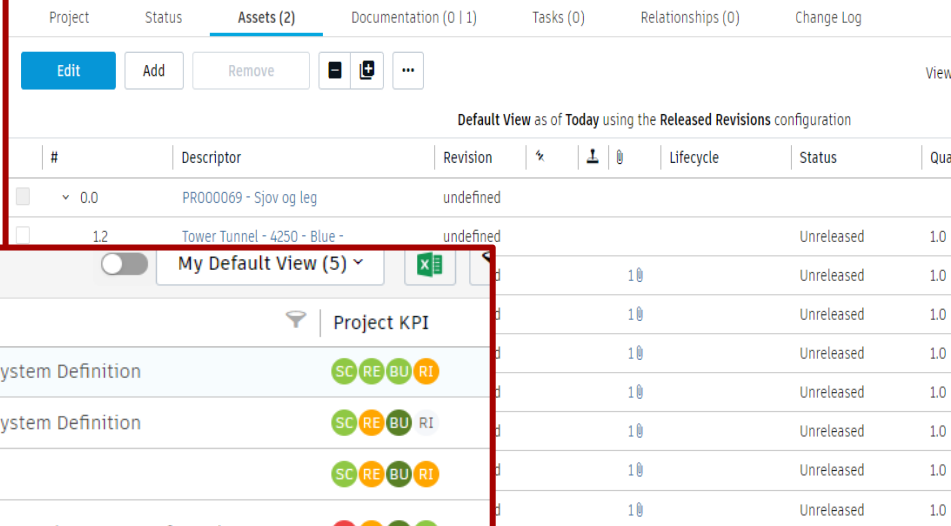
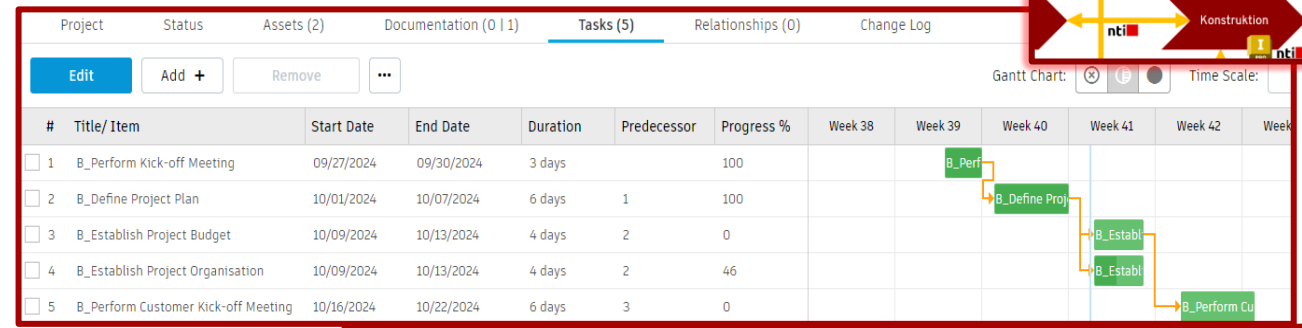
A photograph of a playground with a large wooden frame and green ropes forming a climbing net. Several children are playing on the structure. One girl in the foreground is climbing, while others are on different levels. The background shows trees and a clear sky.

PROJEKTHÅNDBOK

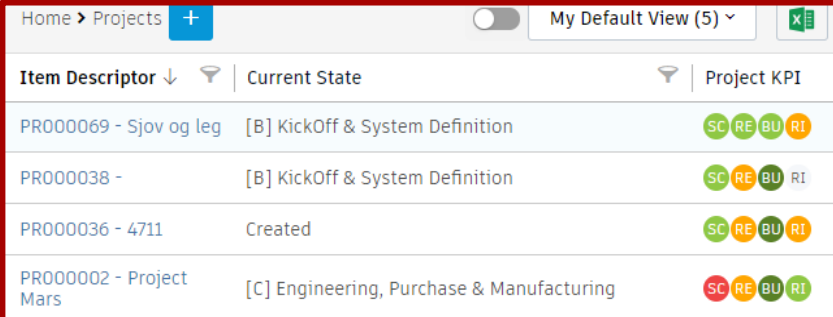
PROJEKTHÅNDTERING

Vi viser

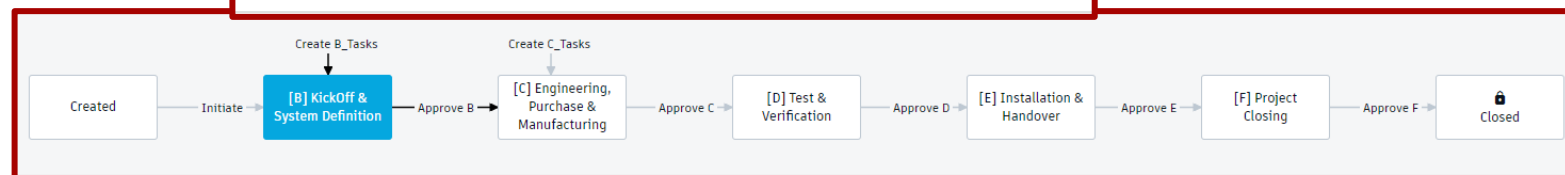
- Konfigurerbare gates & godkendelser
- Opgavestyring
- Produktspecifikke metadata og BOM
- Status i realtid, dashboards og rapportering
- Dokumentation
- Relaterede produkter
- Kritiske produktkomponenter
- Reference til idéer/ændringer osv...
-

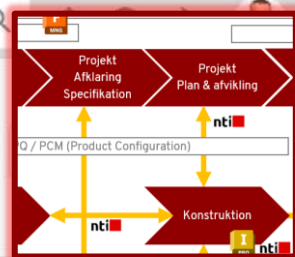


#	Descriptor	Revision	%	Lifecycle	Status	Quant
0.0	PR000069 - Sjov og leg	undefined				
1.2	Tower Tunnel - 4250 - Blue -	undefined			Unreleased	1.0
					Unreleased	1.0
					Unreleased	1.0
					Unreleased	1.0
					Unreleased	1.0
					Unreleased	1.0
					Unreleased	1.0



Item Descriptor	Current State	Project KPI
PR000069 - Sjov og leg	[B] KickOff & System Definition	SC RE BU RI
PR000038 -	[B] KickOff & System Definition	SC RE BU RI
PR000036 - 4711	Created	SC RE BU RI
PR000002 - Project Mars	[C] Engineering, Purchase & Manufacturing	SC RE BU RI





Home > Projects

PR000102 - Ny legeplads

[B] KickOff & System Definition

Workflow actions ▾

Revert workflow action ↶

Project

Status

Assets (1)

Documentation (0 | 1)

Tasks (5)

Relationships (1)

Change Log

Save

Cancel

Add +

Remove

...

Gantt Chart:



Time Scale:

Weeks ▾

<input type="checkbox"/> #	Title/ Item	Start Date	End Date	Duration	Predecessor	Progress %	Week 39	Week 40	Week 41	Week 42	Week 43	Week 44
<input type="checkbox"/> 1	*B_Perform Customer Kick-off Meeting	10/08/2024	10/12/2024	4 days	3	0			B_Perform			
<input type="checkbox"/> 2	*B_Perform Kick-off Meeting	10/15/2024	10/22/2024	7 days	1	0				B_Perform Kick-off		
<input type="checkbox"/> 3	*B_Establish Project Budget	10/01/2024	10/06/2024	5 days		0		B_Establish P				
<input type="checkbox"/> 4	*B_Define Project Plan	10/08/2024	10/22/2024	14 days	3	0			B_Define Project Plan			
<input type="checkbox"/> 5	*B_Establish Project Organisation	10/03/2024	10/17/2024	14 days		0		B_Establish Project Organisation				

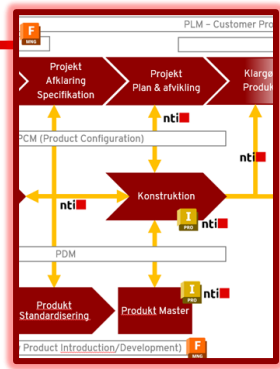
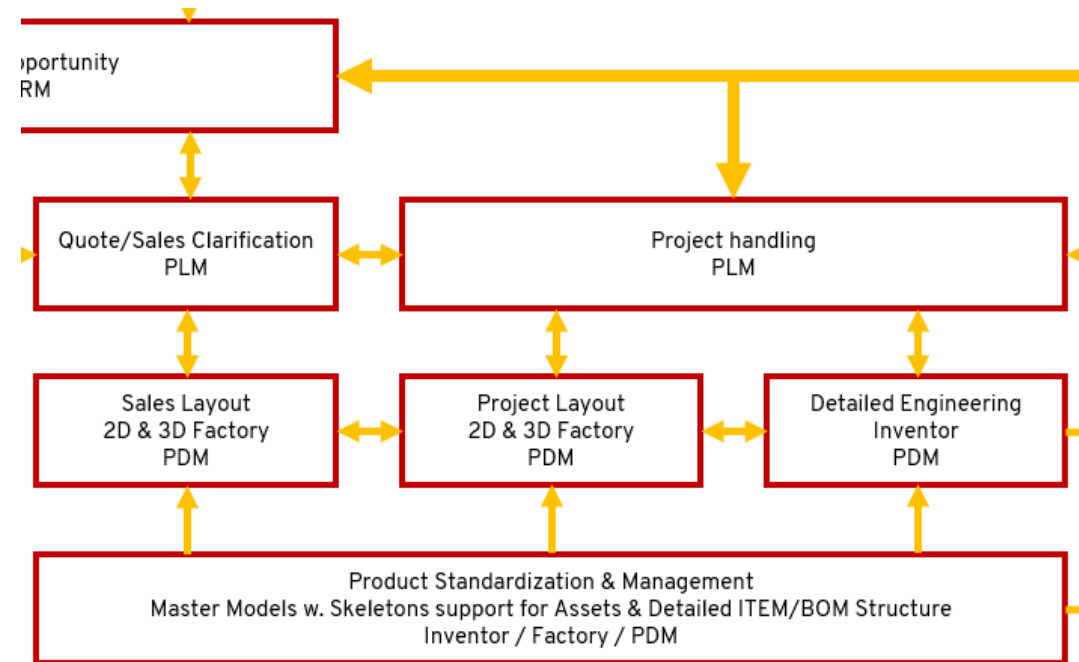
An aerial photograph of a large, complex wooden playground structure. The structure features multiple levels, platforms, and bridges made of light-colored wood. A child is visible walking across one of the bridges. The ground is covered with blue and green safety mats. In the background, there are trees and a paved area. The text 'PROJEKT KONSTRUKTION' is overlaid in large white letters with a red underline.

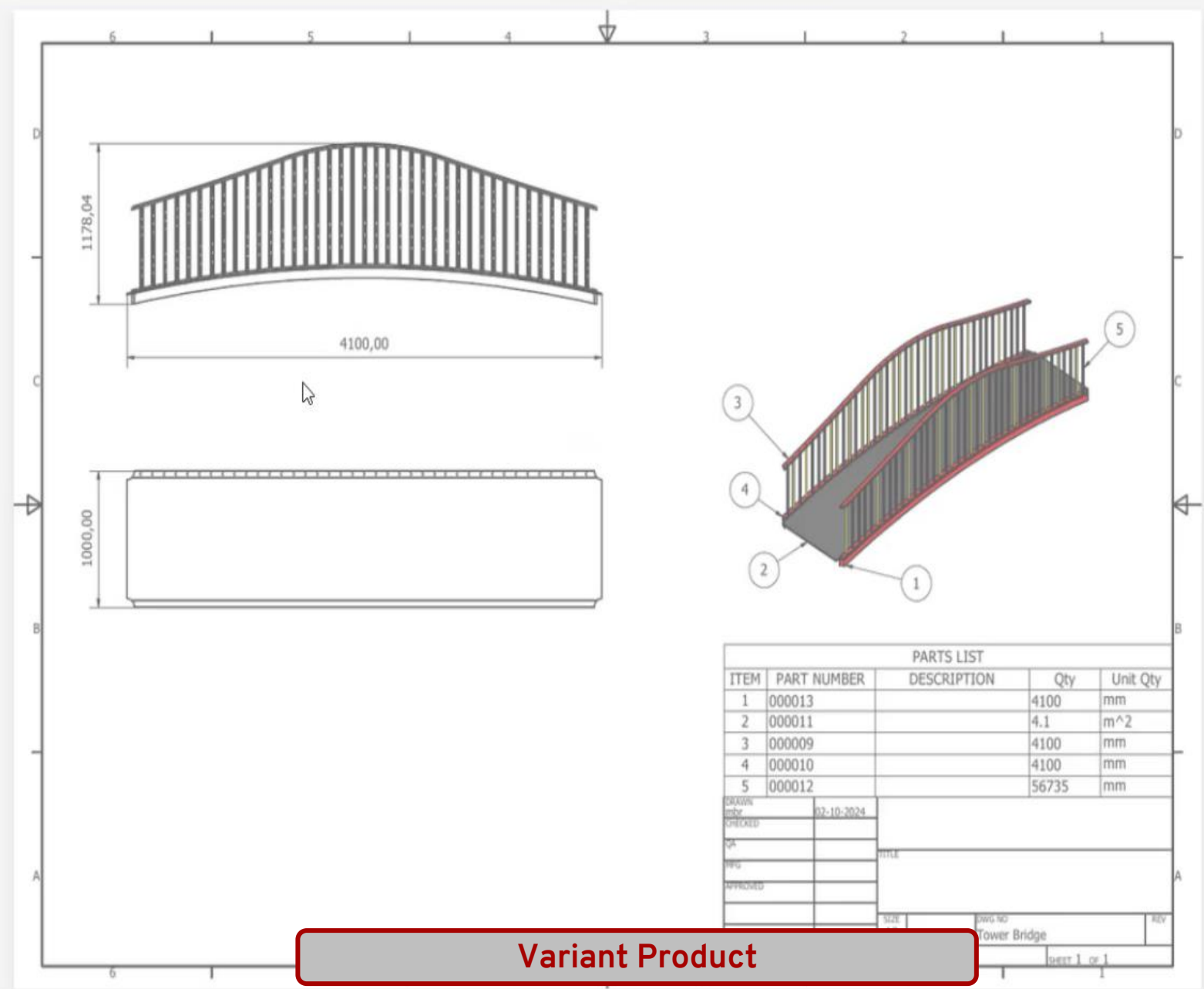
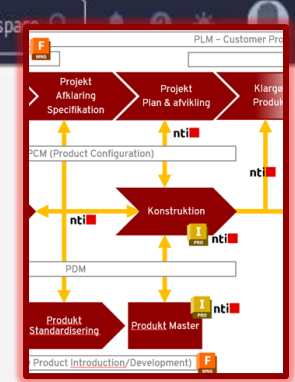
PROJEKT KONSTRUKTION

PROJEKT KONSTRUKTION

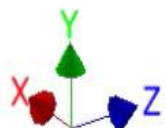


- Standard BOM
- Variant produkt motor
- Konstruktion af Special vare overførsel
- Tilknytning til ProjektBOM gennem Produkt





Variant Product



Property Editor

NTI for INVENTOR Property Editor

Apply Part - Set Auto apply

Active Document Tower and Slide - Config 1
C:\WF\Designs\Sandbox\Custom slide.ipt

Part - Group

Title	Activity Tower
Description	
Product Category	Custom
Part Number	Tower and Slide - Fixed
Revision Number	
Surface Treatment	
Mass	89 kg
Material	PEHD 1000 Black
Unit Qty	Each
Estimated price [DKK]	0

Component Class

MakeBuy	Make
Critical Component	No
Long Lead Item	No
Spare Part	No
Wear Part	Yes

Component Compliance

RoHS	Not Required
REACH	Compliant
Conflict Minerals	Compliant
Carbon Footprint	Compliant

PLM Diagram:

The diagram shows the product lifecycle flow:

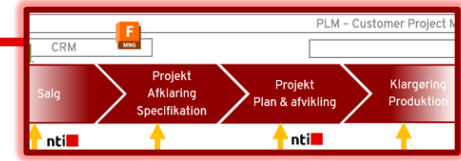
- Projekt Arkivering / Projekt Plan & afvikling / Klarga Produkt
- nti (New Technology Insertion)
- PCM (Product Configuration)
- Konstruktion
- PDM
- Produkt Standardisering
- Produkt Master
- Product (Introduction/Development)



PROJEKT REVIEW

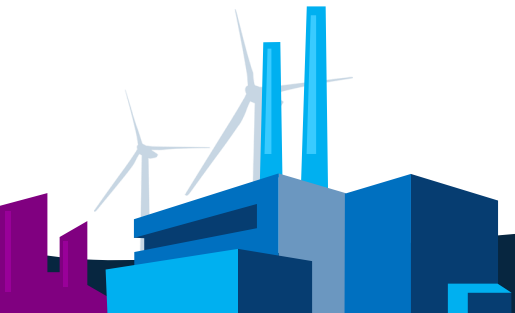


PROJEKT REVIEW



Vi viser

- Projekt i online review portal
- BOM / Komponenter / Materialer
- 3D overblik / Dashboard
- Dokumentation
- Status



Dashboard



Item Lifecycle



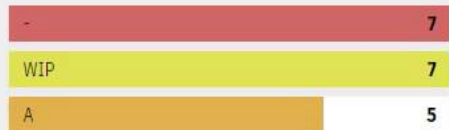
Pending Change



Change Orders



Revision



Status



Bill of Materials



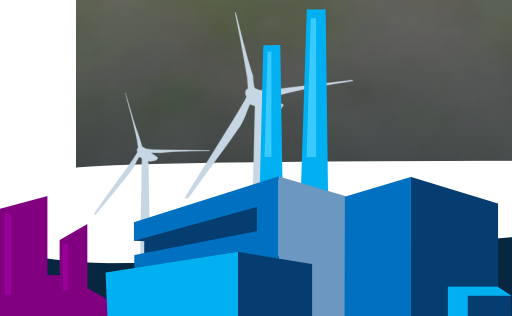
- 1.1 Slide Base Exit - Slide Base 700mm
 - 2.1 Slide Base Exit - - Slide Base 700mm [REV:A]
- 1.2 Standing Spinner - Standing Spinner
 - 2.1 Standing Spinner - - Standing Spinner [REV:A]
- 1.3 Slide Setup Part - Standard Slide
 - 2.1 Slide Setup Part - - Standard Slide [REV:A]
- 1.4 100012 - Activity Tower - Predefined
 - 2.1 100012 - - Activity Tower - Predefined [REV:A]
- 1.5 TowerBridge - 4100 - 1000 -
 - 2.1 TowerBridge - 4100 - 1000 - - [REV:w]
 - 3.1 000013 - - Tower Bridge support beam [REV:w]
 - 3.2 000011 - - Tower bridge floor plate [REV:w]
 - 3.3 000009 - - Tower bridge top railing [REV:w]
 - 3.4 000010 - - Tower bridge bottom railing [REV:w]
 - 3.5 000012 - - Tower bridge rail post [REV:w]
- 1.6 Tower Tunnel - 4300 - Blue -
 - 2.1 Tower Tunnel - 4300 - Blue - - [REV:w]
- 1.7 Spring Plate - Spring Plate
 - 2.1 Spring Plate - - Spring Plate [REV:A]



Project Review



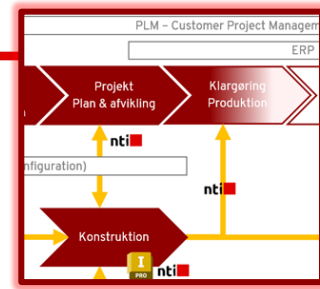
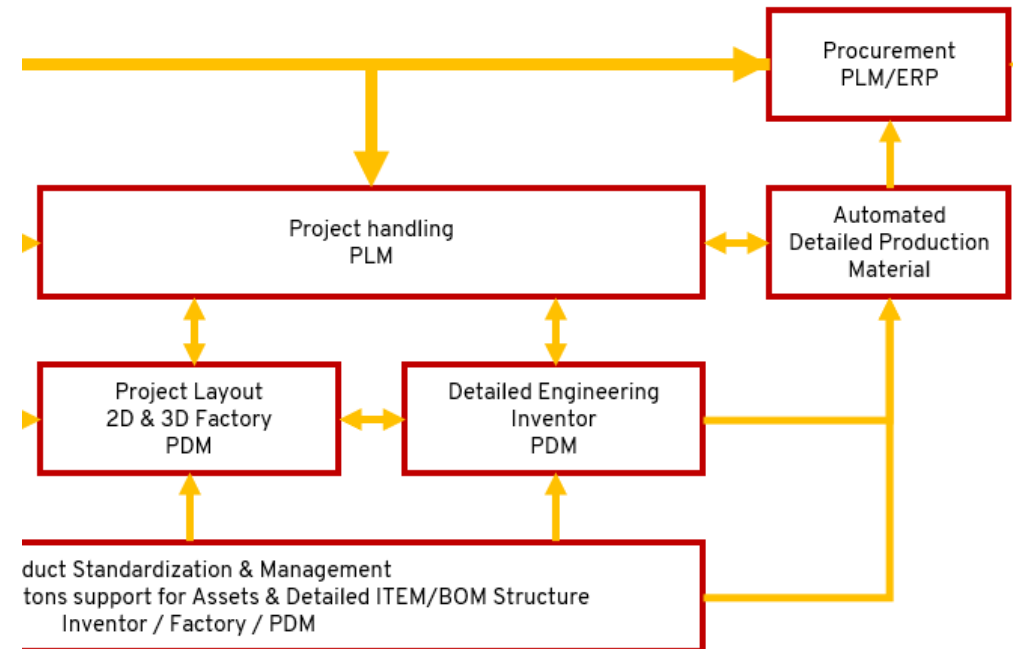
AFLEVÉR PRODUKTIONS DATA



PROJEKT DATA/BOM TIL PRODUKTION

Vi viser

- Produkt BOM/Varer Struktur
- Produktions BOM Struktur
- Operation Rute håndtering
- 3D overblik / Dashboard
- Dokumentation
- Status





Disassemble

EBOM Alignment

Add Items

Manufacturing BOM



NTI 001_PlaySetGA - NTI Legeplads 001 [...]		
NTI001_Base1 - NTI001_Base1...	1	Add
NTI001_BaseDeck1 - NTI001_...		
A0-0001 - A0-0001 [REV:...	2	Add
A0-0003 - A0-0003 [REV:...	2	Add
A0-0004 - A0-0004 [REV:...	2	Add
A0-0012 - A0-0012 [REV:...	13	Add
A0-0014 - A0-0014 [REV:...	2	Add
A0-0019 - A0-0019 [REV:...	1	Add
B0-0005 - A0-0025 [REV:...	2	Add
A0-0024 - A0-0024 [REV:...	2	Add
NTI001_MainRailing1 - NTI00...	1	Add
NTI001_RoofStructure - NTIO...		
100004 - A0-0048 [REV:...	2	Add
D0-1248 - RoofStructure...	2	Add
100008 - A0-0053 [REV:...	24	Add
D0-1249 - RoofCap [REV:...	1	Add
100007 - A0-0049 [REV:w]	4	Add
100006 - A0-0050 [REV:...	2	Add
100005 - A0-0051 [REV:w]	2	Add
NTI001_Base2 - NTI001_Base...		

NTI 001_PlaySetGA - - NTI Legep...		
A0-0047 - A0-0047 [REV:w]	2	
100011 - A0-0046 [REV:w]	2	
SwingsetTopBracket - SwingsetT...	1	
A0-0045 - A0-0045 [REV:w]	2	
100010 - A0-0037 [REV:w]	1	



Add All

Deselect All

Toggle Viewer Colors

Add Process

Title

Code

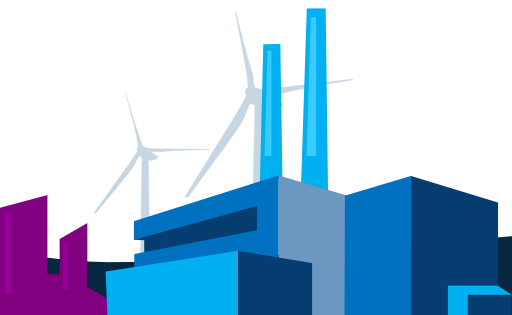
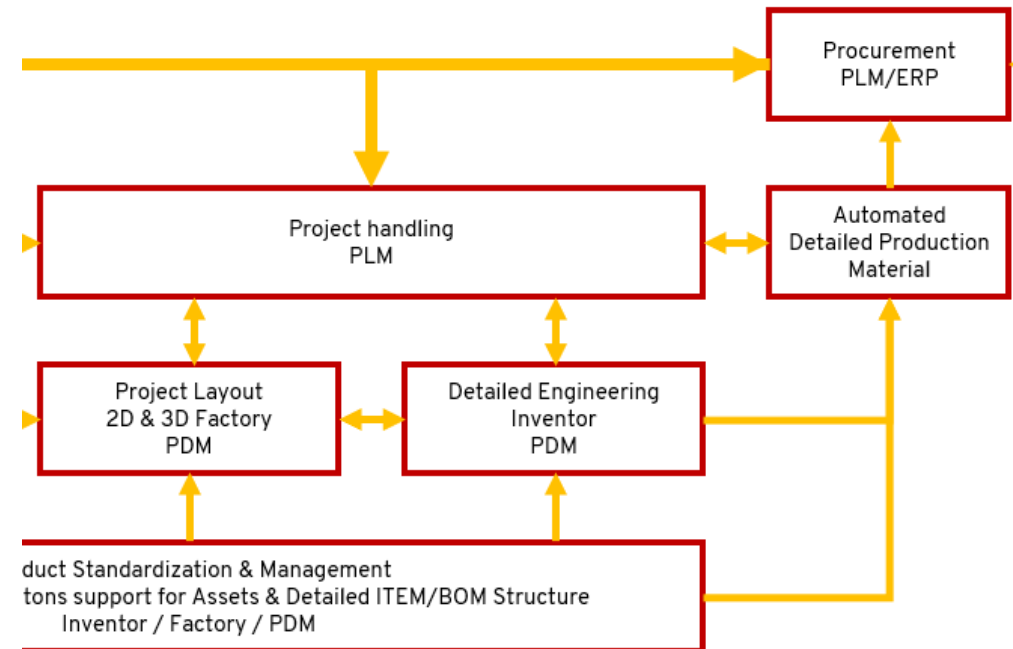
PROBLEM/FEJL RAPPORTER



PROBLEM/FEJL RAPPORTERING

Vi viser

- NCR/CAPA opstartsprocess
- Tilbagemeldingsplatform
- 3D overblik / Dashboard
- Dokumentation
- Status



PR000079 - Test Failure - Loose Rocks

New Created by Morten Benner Roldsgaard on 8.10.2024. Last modified by Morten Benner Roldsgaard on 8.10.2024.

Select Action



Upload File



Activity

Next Step

→ Submit

Initiate

Morten Benner Roldsgaard
8.10.2024

Details

Summary

Number

PR000079

Title

Loose Rocks

Type

Test Failure

Team

Initial Review

Roldsgaard, Morten Benner

Initial Review

Technical Review

Roldsgaard, Morten Benner

Problem Report

Inspection

Test Report

Audit

Ideas

NCR

CAPA

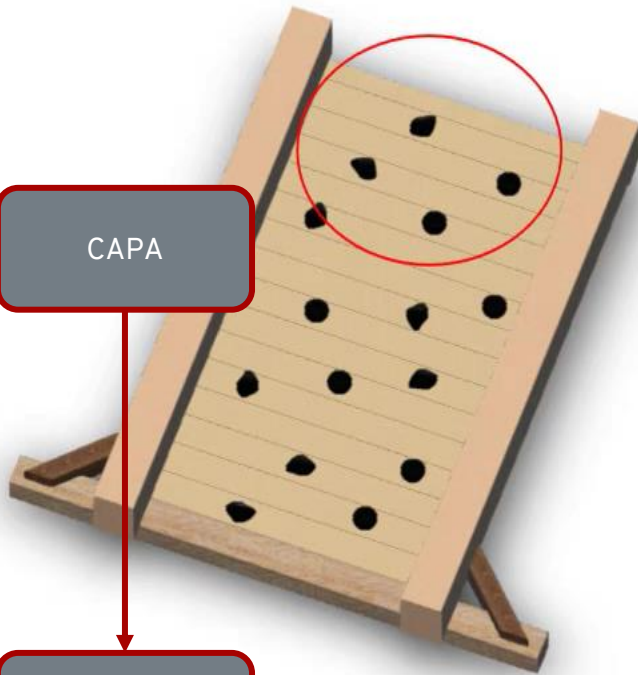
Change Request

Change Order

Attachments

Markups

Capture markups using the given controls within the viewer above. They will be saved in context of this process.



Shape



Actions





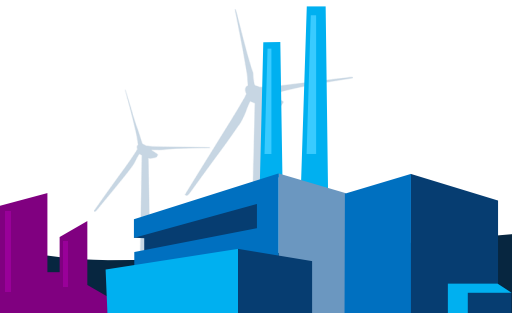
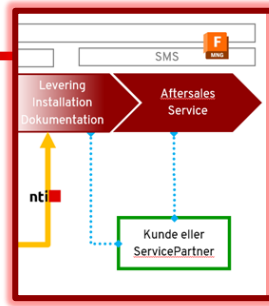
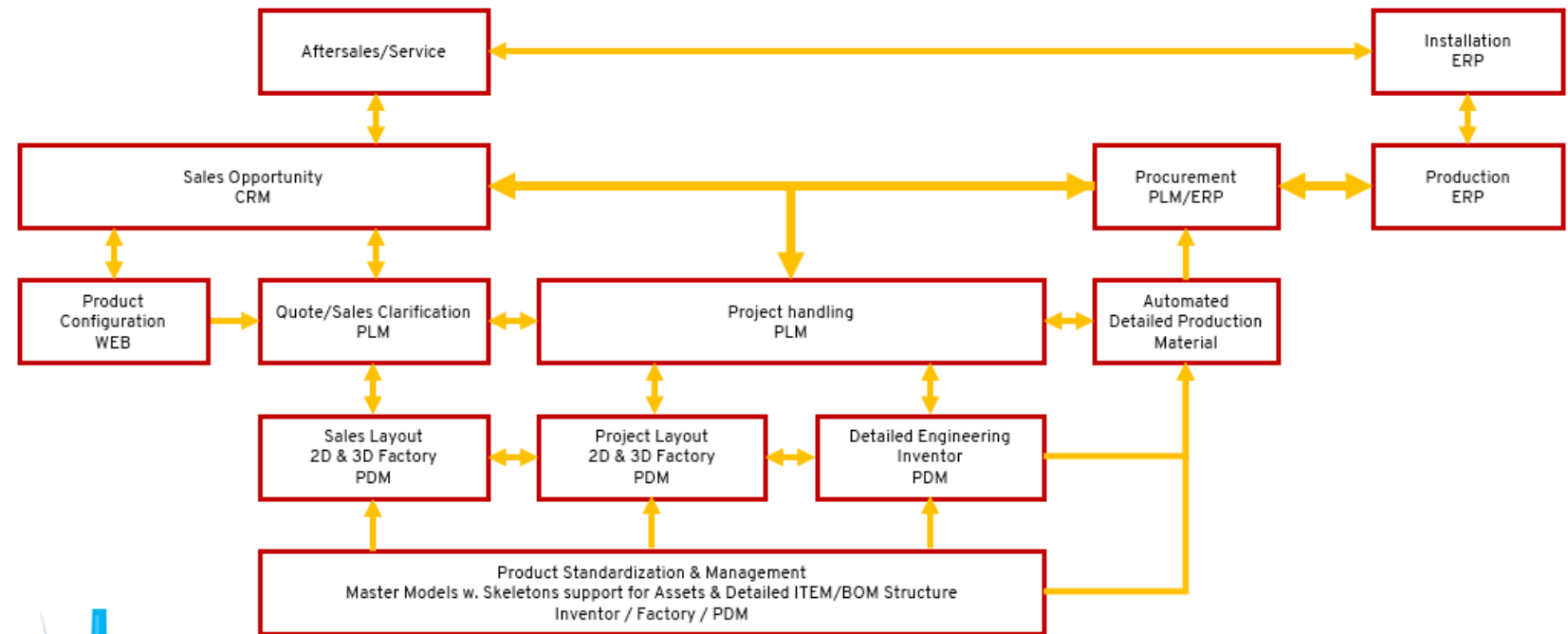
SERVICE OG RESERVEDELE



PROJEKT SERVICE PLATFORM

Vi viser

- Produkt Struktur
- Produkt Dokumentation
- Reservedels håndtering
- Reservedelsbestilling
- 3D overblik / Dashboard





Bill of Materials

Filter

- > NTI001_Base1 - - NTI001_Base1 [REV:w]
- > NTI001_MainRailing1 - - NTI001_MainRailing1 [REV:w]
- > NTI001_RoofStructure - - NTI001_RoofStructure [REV:w]
- > NTI001_Base2 - - NTI001_Base2 [REV:w]
- > NTI001_MainRailing2 - - NTI001_MainRailing2 [REV:w]
- > NTI001_BaseDeck1 - - NTI001_BaseDeck1 [REV:A]



Attachments

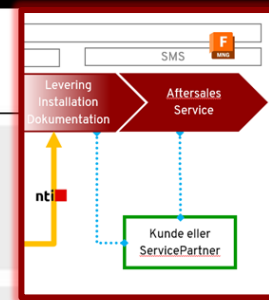


NTI 001_PlayS
Created by DK Va
8.10.2024, 1

Service Portal

Spare Parts

	8 Rock2		Out of stock
	6 HandBar		Out of stock
	1 RoofCap		Out of stock
	8 AO-0036		Low stock
	3 SwingAssembly		Out of stock
	3 SwingSeat ABS 200 / 500 mm x 250 mm x 150 mm		Out of stock
	6 Chain Steel 500 / 10 mm x 10 mm x 500 mm		In stock

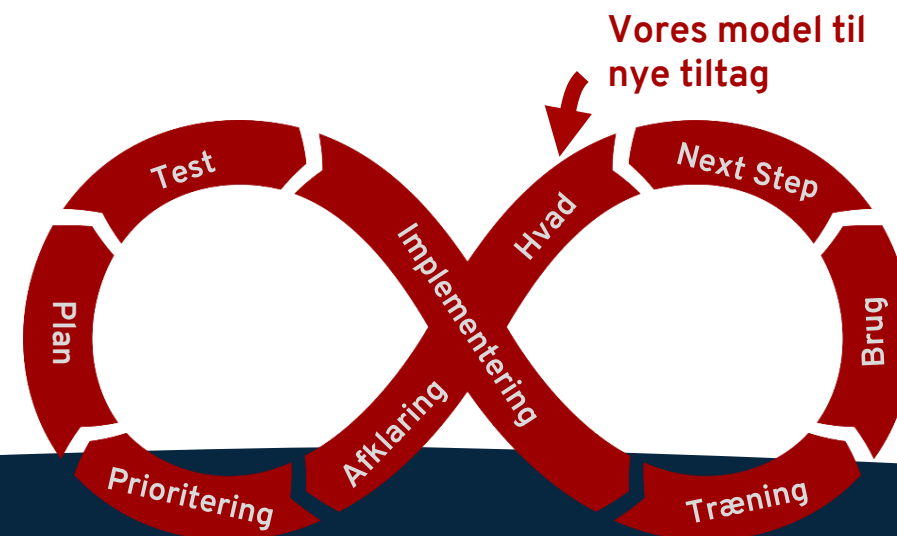
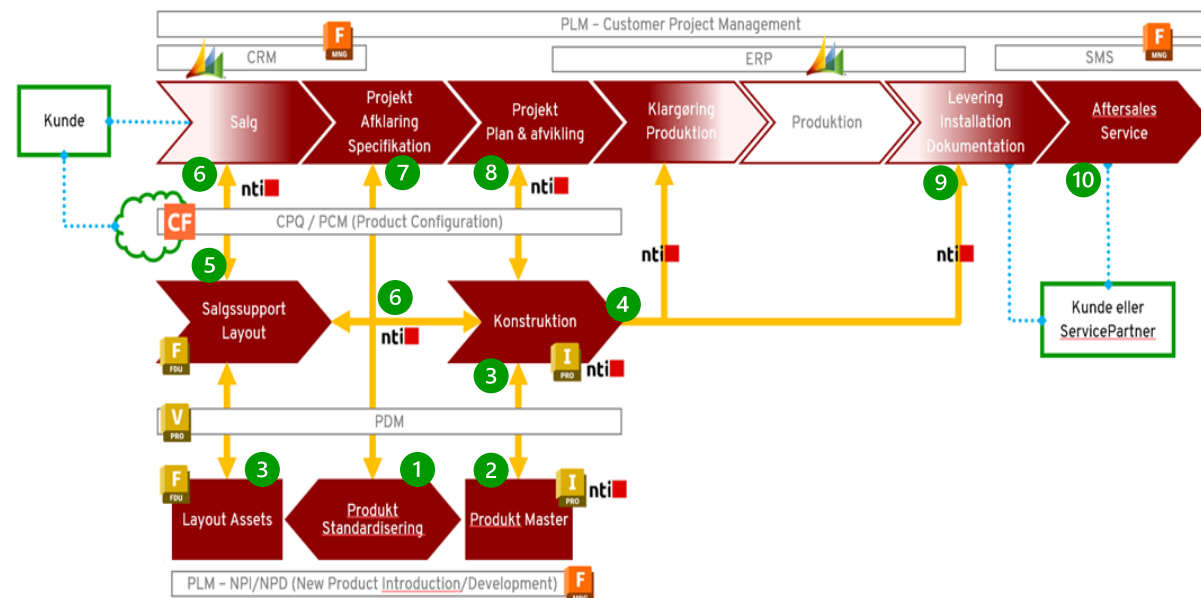


I GANG MED INTEGRERERE DATA

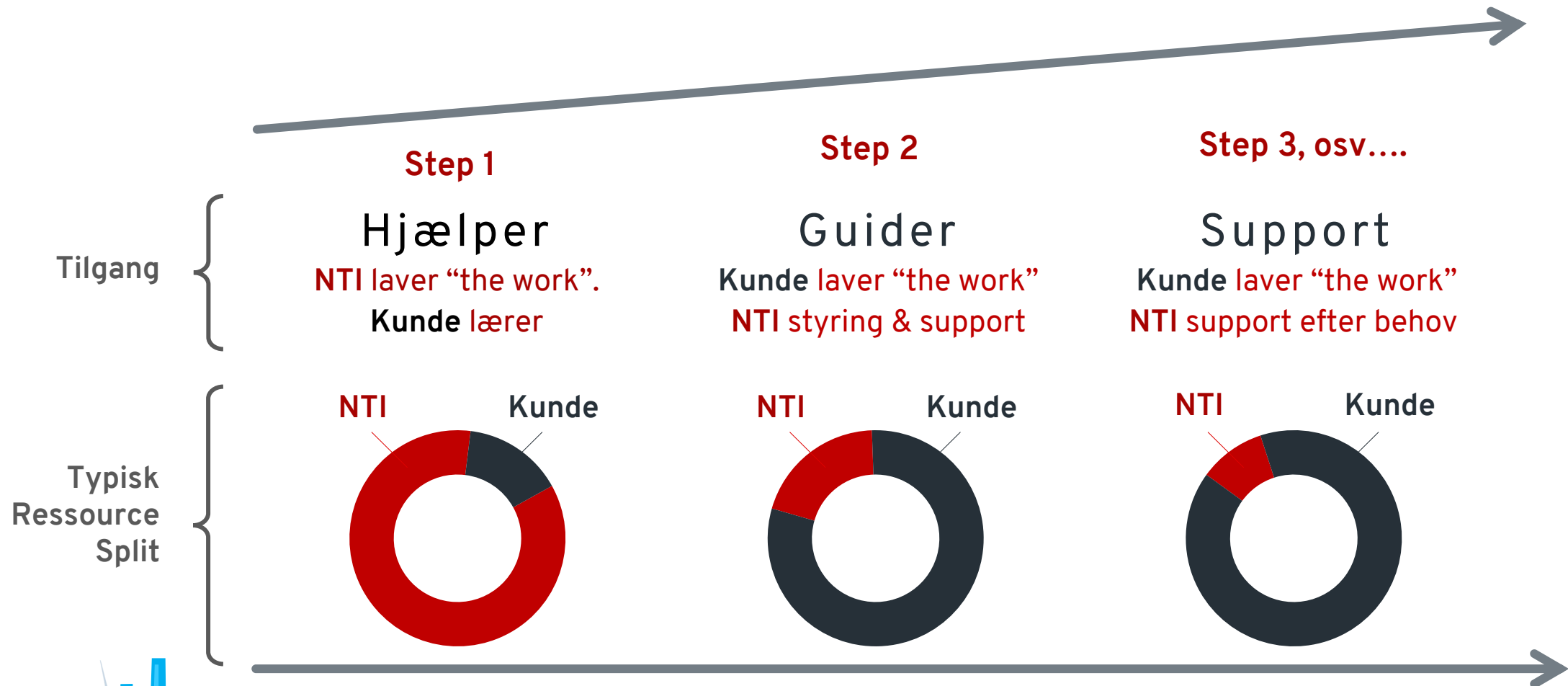


DER ER FLERE VEJE

- Afstemning af - **hvad, hvorfor og hvordan**
 - Vi laver ofte en afklaring og plan sammen med vores kunder, ift. prioritering af vigtighed
- Der er mulighed for at starte alle steder, det er afhængigt af virksomhedens behov
- Det vigtigste er **LEVENDE OPDATEREDE DATA**
- Integration tilføres efter behov



IMPLEMENTERINGS TILGANG





Q&A



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TAK FOR I DAG
