Increased Company Efficiency Supported by SAP PLM/ECTR

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Sandvik Coromant

Session ID # 83100

Increased Company Efficiency Supported by SAP PLM/ECTR

About the Speakers - Sandvik Coromant

Rickard Nordgren

- PLM IT Manager

Jonas Stafberg

- Manager PLM Process Development

Peter Bryngelsson

- PLM Process Owner

Key Outcomes/Objectives

1. System implementation vs Business implementation
2. Structured change management and follow up for commitment and engagement
3. Business strategy execution fulfilled by EA framework

Company intro – Sandvik Group

https://www.youtube.com/watch?v=k1hxZyD9VGI

Company intro – Sandvik Group

43,000
EMPLOYEES

91
BILLION SEK INVOICED SALES

50
R&D CENTERS GLOBALLY

SALES IN OVER
150
COUNTRIES
AROUND THE GLOBE

3.5
BILLION SEK ANNUAL R&D INVESTMENT

7,300
ACTIVE PATENTS AND OTHER IP* RIGHTS

Figures refer to Group total 2017

SANDVIK MACHINING SOLUTIONS


INSERTS


ROUND TOOLS


TOOLING SYSTEMS

SANDVIK MINING AND ROCK TECHNOLOGY


UNDERGROUND DRILLING


TUNNELING


LOADING & HAULING

SANDVIK MATERIALS TECHNOLOGY

ASUG

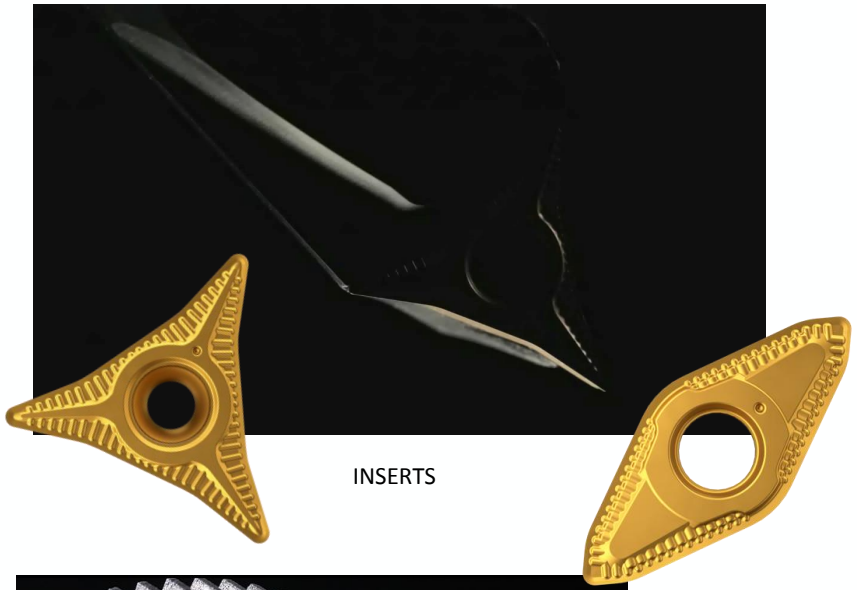
Sandvik Machining Solutions

We are a market-leading manufacturer of tools and tooling systems for advanced metal cutting.

Our tools and tooling systems for metal cutting as well as advanced materials and components are used in engineering industries worldwide, improving productivity, profitability, quality, output, safety and environment.

Product Areas

- Sandvik Coromant
- Walter
- Seco
- Dormer Pramet
- Applied Manufacturing Technologies
- Additive Manufacturing



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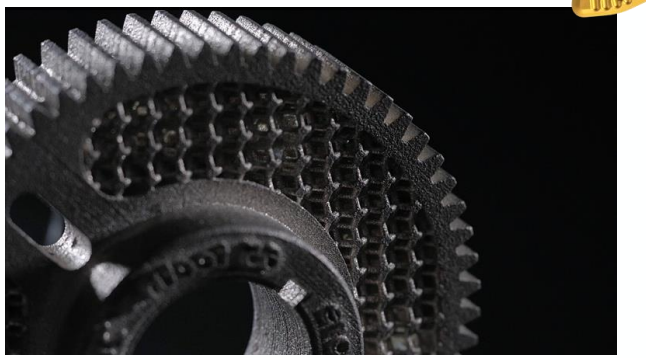
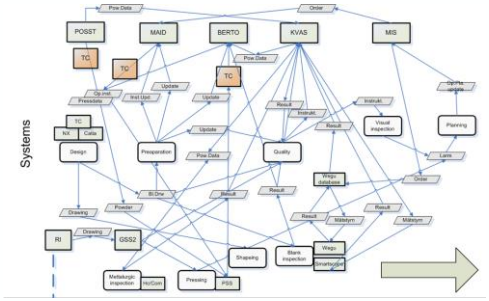


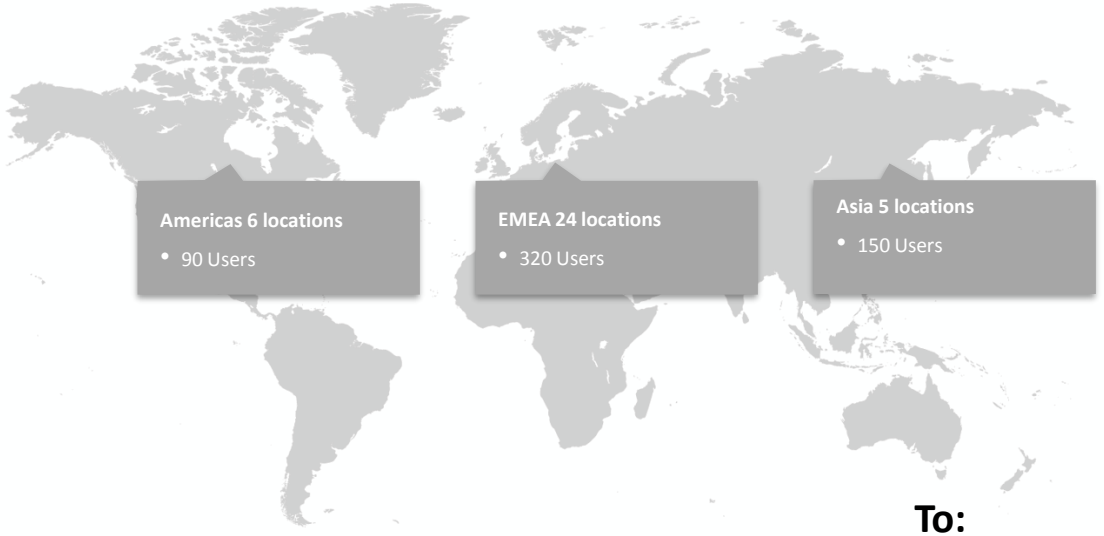
ADDITIVE MANUFACTURING

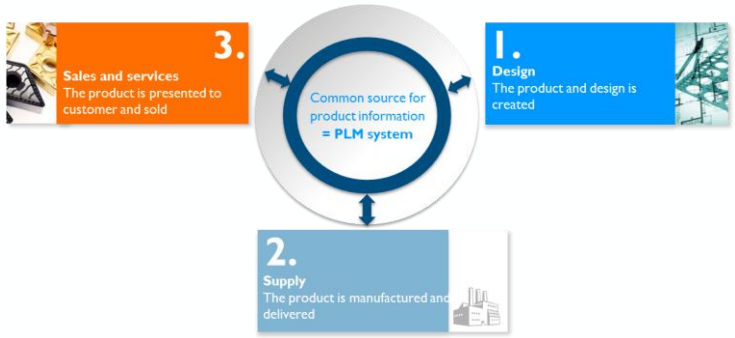
ROUND TOOLS

TOOL HOLDING SYSTEMS

The background, targets and direction







From:

Data management and Product Management

Product and Design data in silos

Local control and local processes

Local stored data on site, distributed globally on demand

Duplicates of design data

To:

PLM - Product Lifecycle management

Product and Design data in one common source

Global control and global processes

Global access to data

Single source of data, no duplications

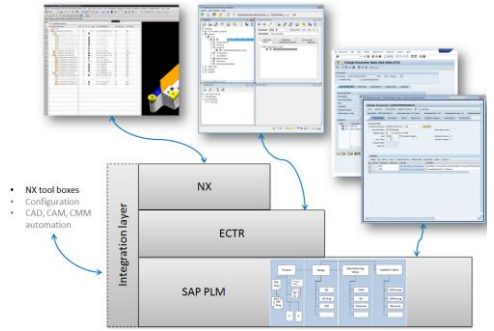
The background, targets and direction

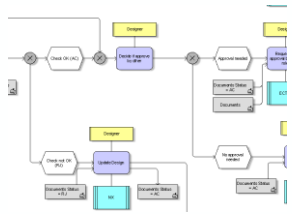
PLM - Product Lifecycle management

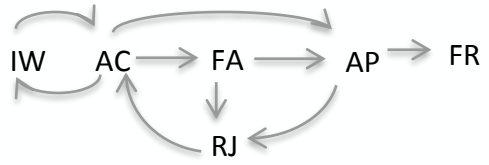
Product lifecycle management involves creating a common source for product information to be used in design, supply, sales and services.

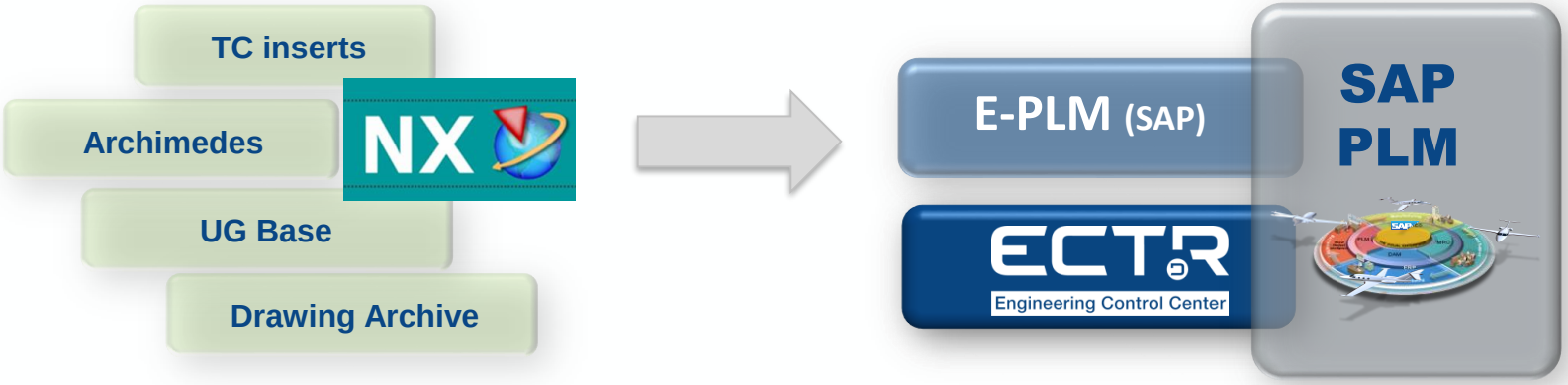
Integrated solution

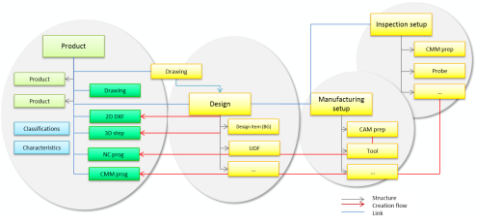
CAD environment integrated to SAP via SAP ECTR, controlled via one Information model, global processes and business rules.











What was delivered

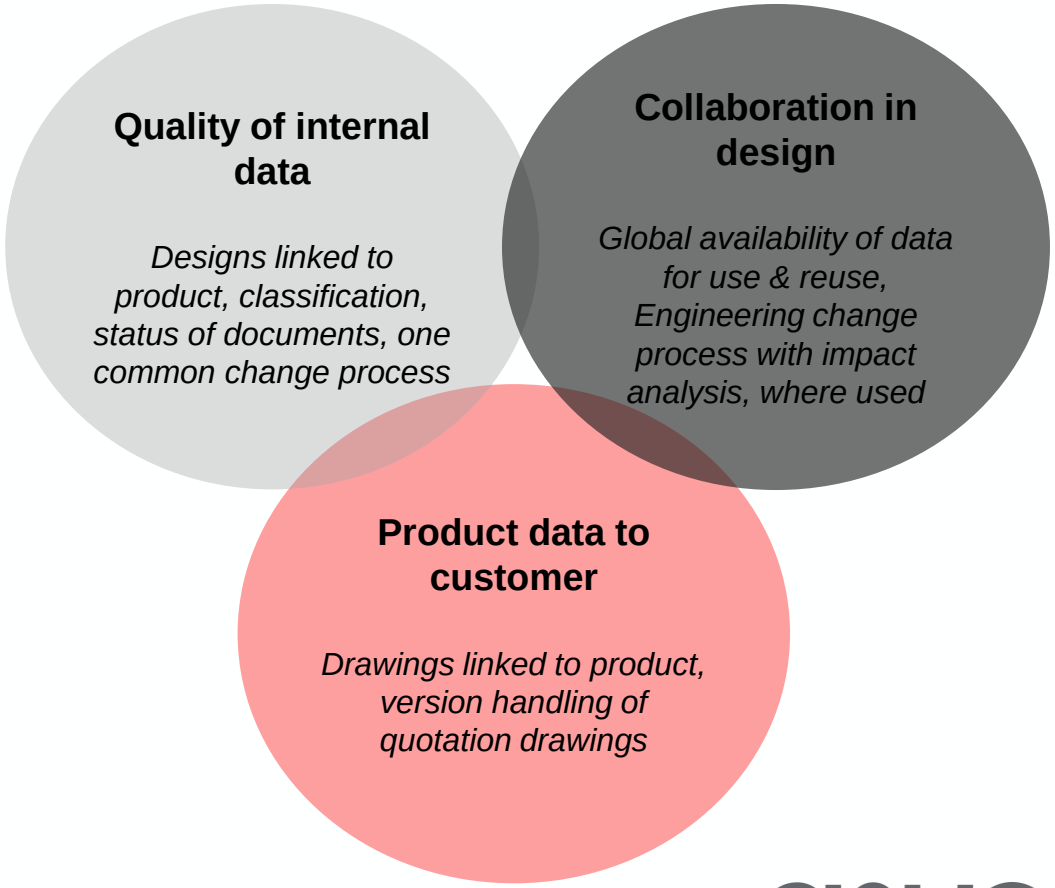
- IT solution, design data connected to products
  - One source for designs, drawings and documents for our products
- Possibility to reduce redundant processes with different IT systems
  - Need to achieve business processes more operative and supportive organization
    - Processes – GAP, Capability drop => Performance driven

PLM enables efficient product development processes and drive quality of information

Common Master data with Product Lifecycle Management will **lead to** :

- **Increased productivity** by multiple activities towards one common product master, i.e. global design collaboration.
- **Shorter response time** to customer through availability of correct product data for quotations, orders and services to customers.
- **Decreased administrative cost** by availability of correct product information and reduced need of local maintenance of product information.

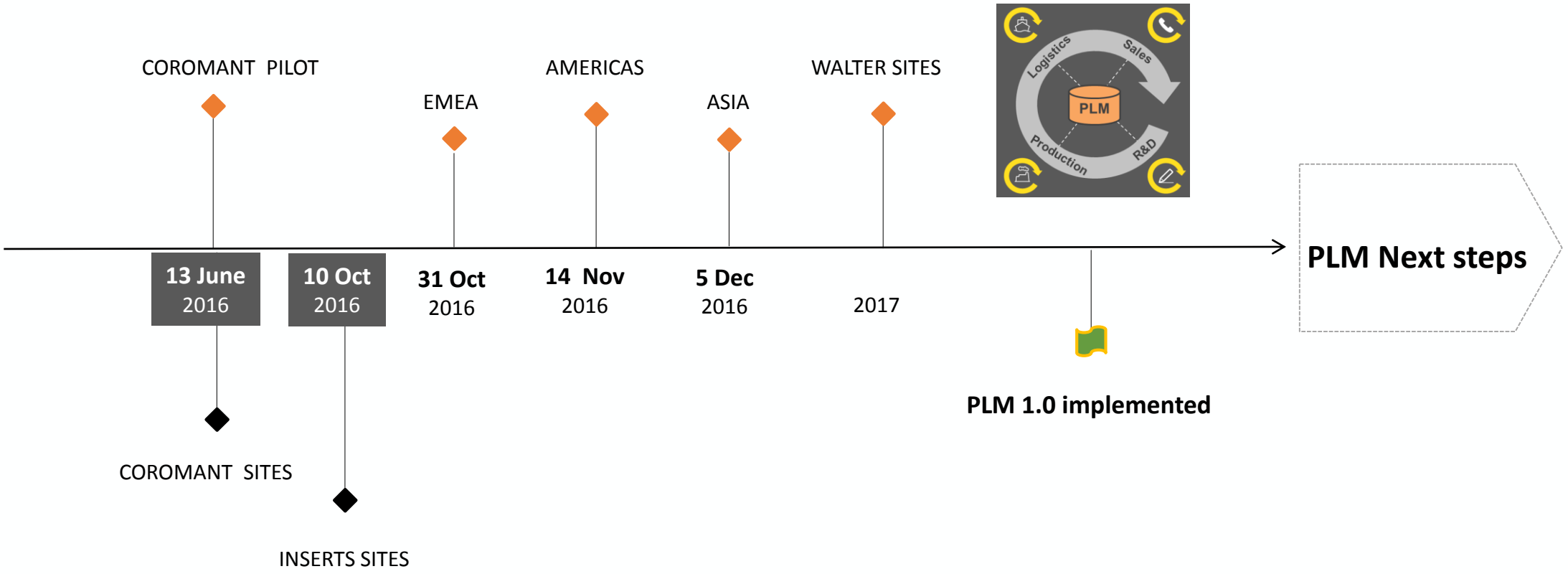
Reduced key individual dependency



Key roles and collaboration for keep all sites in coordinated pace

- LIL, Local implementation leaders
- Stakeholder communications
- Global implementation leader
- IT solution experts acting globally

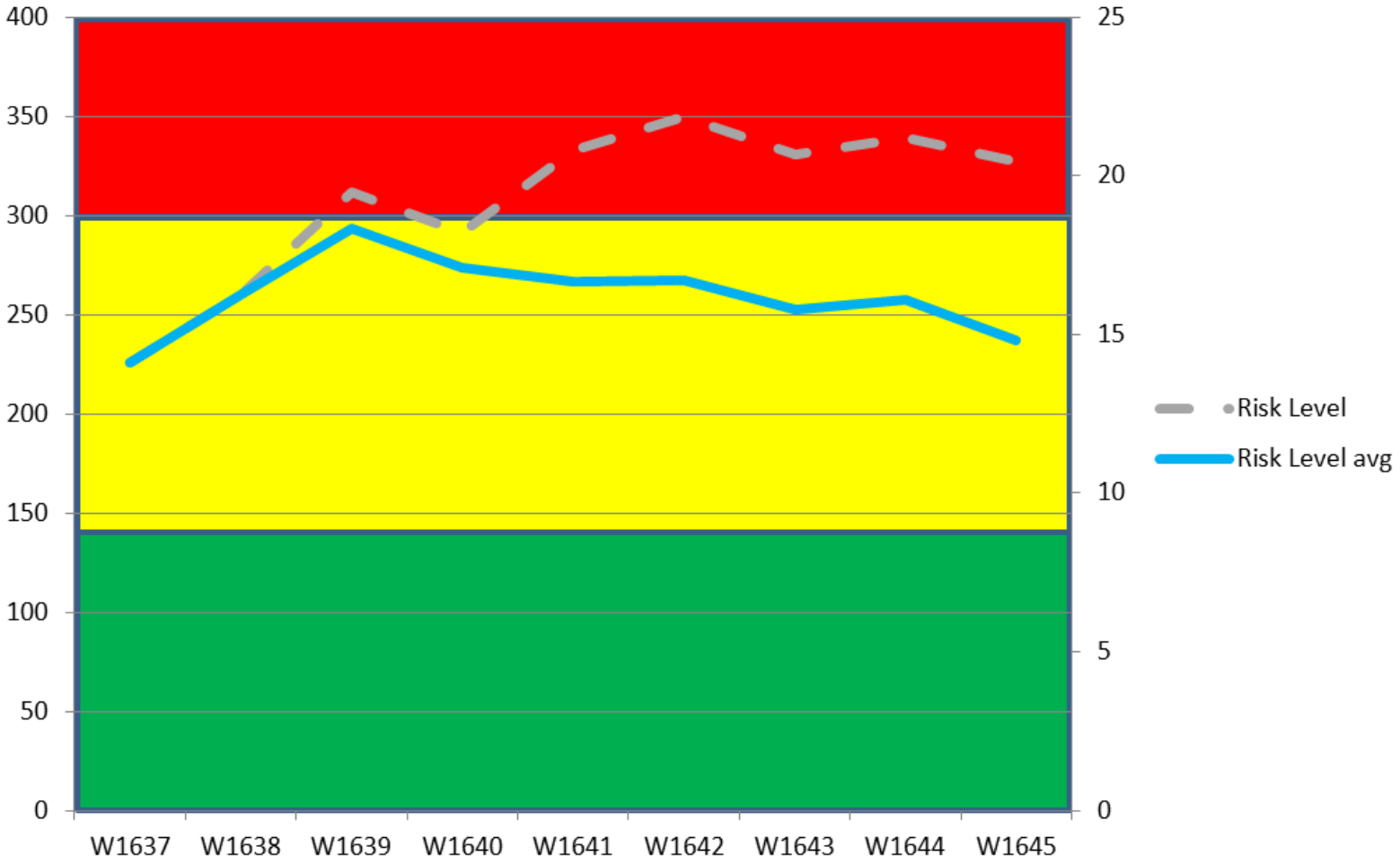
Transformation to SAP PLM with ECTR



PLM BUSINESS GO-LIVE for NX designers
CAD/CAM files in PLM (ECTR)

PLM BUSINESS GO-LIVE for drawing consumers
PDF drawings in PLM (DMS)

Risk management, weekly review and actions



Main risks

- Wow and how to act in different scenarios with ownership, drives productivity drop
- IT Infrastructure performance
- Data Quality
- Migration readiness and defect solving
- Support

Global roll out plan Implementation & Site preparation

Phase A
Mobilization

- Site kick-off
- Project expo
- Planning
- Mobilization
- Startup local rollout team
- Test cases created

Phase B
Site preparations

- Site planning, scheduling and communication
- Key User training
- User Acceptance Tests
- Train the trainer
- Assign users to system roles
- Translation of training material

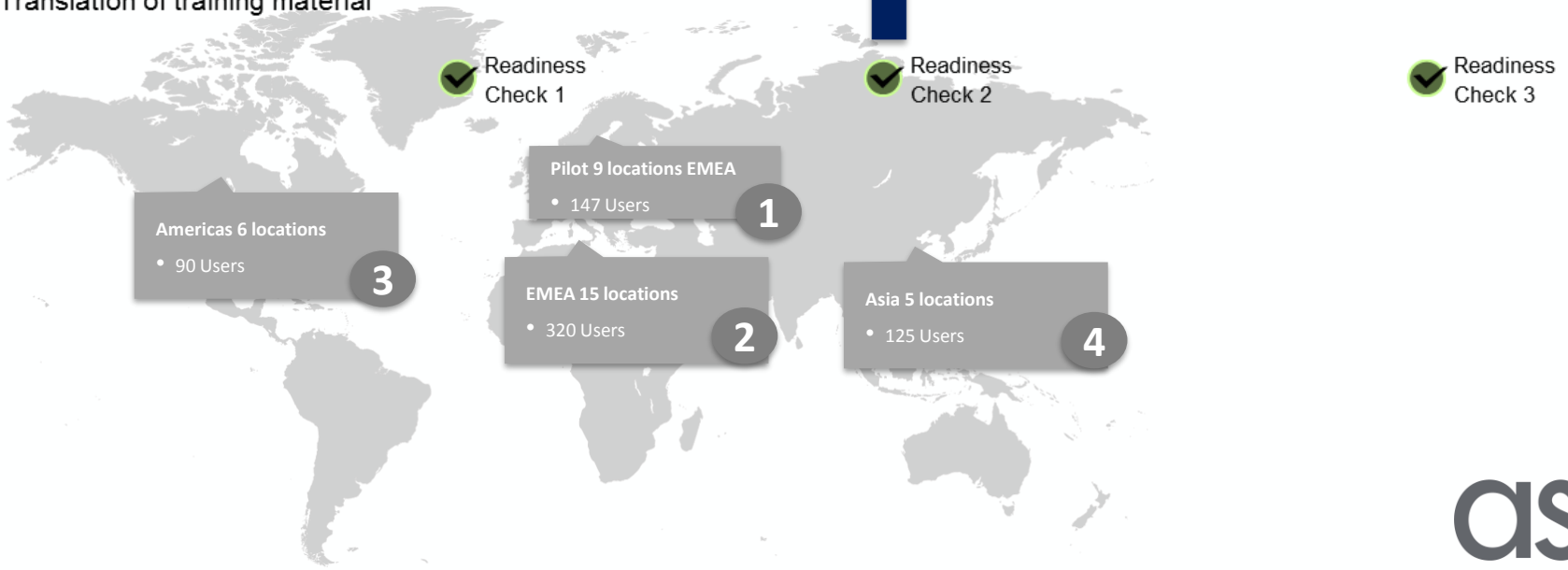
Phase C
Final site preparations
Training,

- End user training

Cut-over – Business go-live

Phase D
Support, Stabilization, Handover to support organisation

- User support
- Technical support
- Status reporting
- Bug fixing
- Handover to maintenance



Score board for inspire and result oriented in three Status gateways

- Close contact with all sites
- Every Readiness Check gateways was measured verse pre-defined key questions/criterias.
  - Every question has a specific value verse 100%
  - All value of fulfilled points was measured in percent to verify ”green” light to go ahead or rework
  - Trigger positive atmosphere to get value/ points in the review

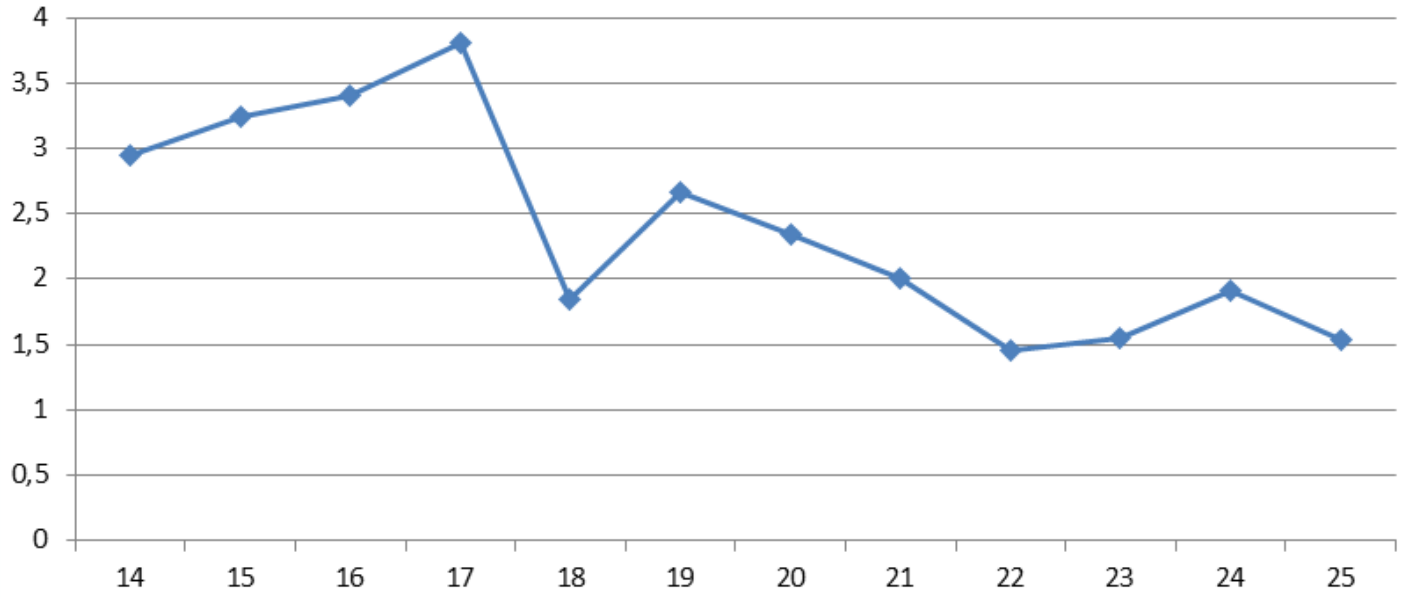
SRC 1 - Before End User Training and final preparations						
SF 1 Team mobilized	SF 2 Stakeholder informed	SF 3 Key User trained	SF 4 EUT Prepared	SF 5 Data preparation	SF 6 Local Adjustment	Status RC1
40%	30%	0%	38%	100%	100%	60,0%
70%	100%	0%	50%	50%	100%	75,0%
100%	100%	100%	100%	92%	90%	96,0%

Line business main demands after implementation

- Focus on line business gaps
  - Multiple sessions of input
  - Set priority according to Business effect
  - Execute most prioritized activities

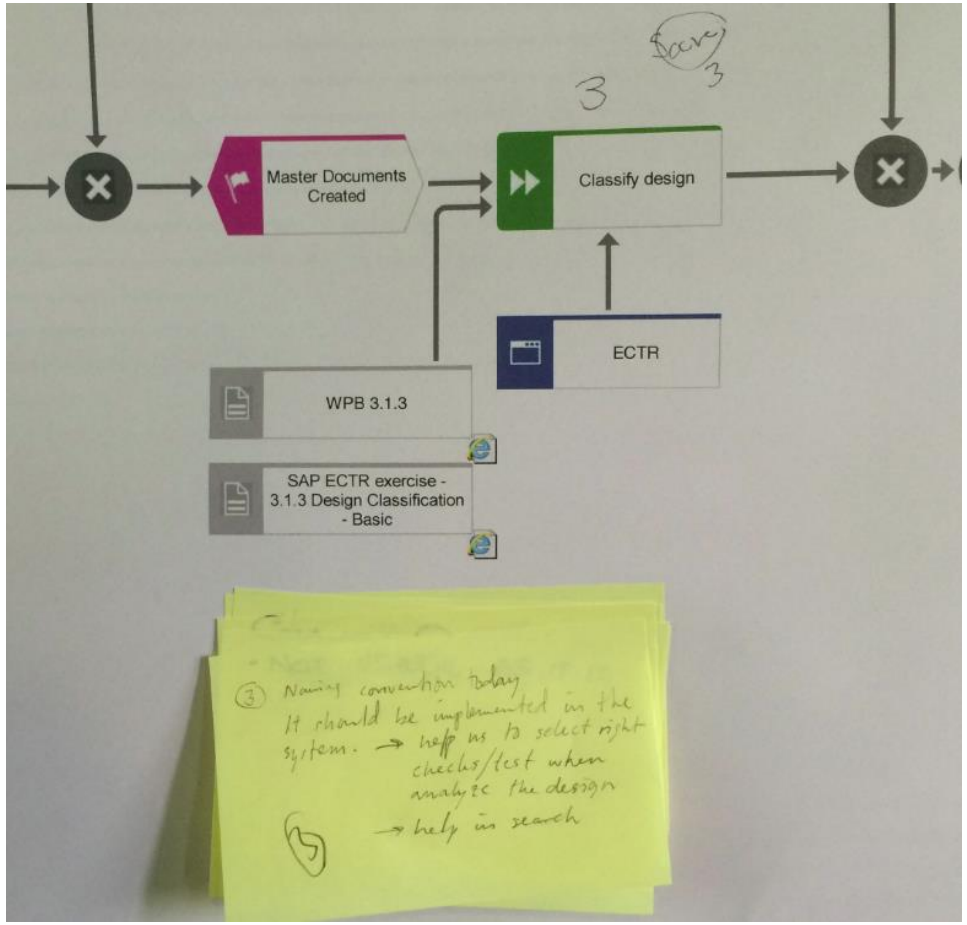
Performance focus

- IT was estimated to one of key element for productivity drop
  - Global program increased line capacity
  - Cache servers to limit number of chating over the net.
- Using a real case automation script to simulate real time of a designer to create an assembly (system time only)



Process gap mitigation

- Always act to follow common defined way of working
  - Process, instructions by role, defined IT systems
  - When not find good enough be a part to improve the process and facilitate alignment
  - Stop using parallel applications
  - Be a active in organization and run ownership of performance and activities
- Governance team to establish and maintain Product Information Life cycle Management Strategy, Plan/ Roadmap incl execution
  => Performance in focus



Productivity drop and improvements

Indicator	Q1	Q2
Efficiency improvement	6,6%	14,9%
Lead Time of an automatic Assembl. (minutes)	4,0 (ca)	1,6
Business user-experience index	37%	55%

Implementation learnings

- Need of a process owned organization early
- Blueprinting phase was too much theory.
- Start Prototyping earlier to understand requirements.
- Tricky to get E2E process performance when splitting into a lot of work packages.

Driving forces going forward

Increasing information demand

Growing customer skills gap

Manufacturing Industry Digitalization

Tooling decisions in design and planning stage

Demand for business sustainability

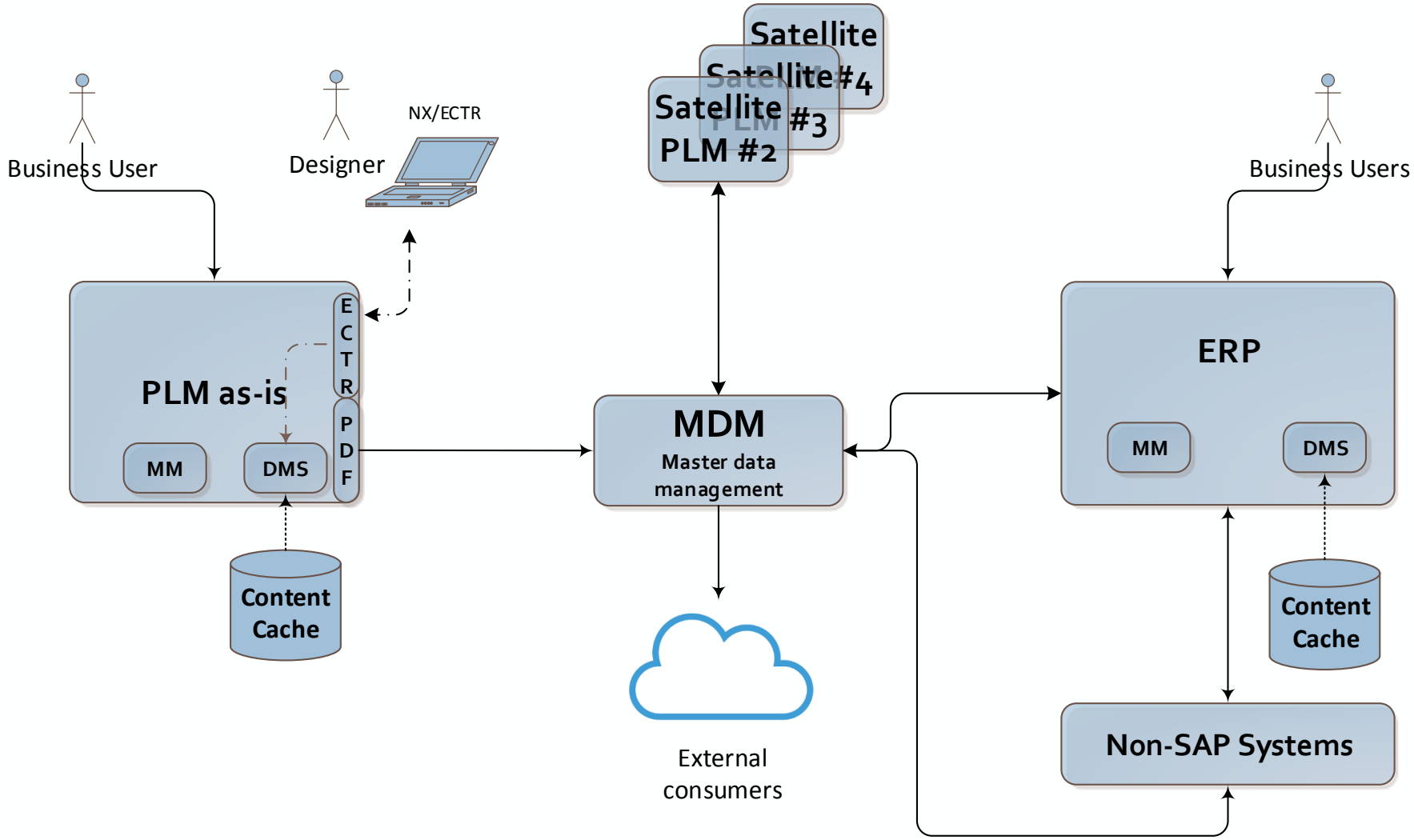
How to meet business needs?

- Enterprise Architecture focus
  - Master data
  - Methods & processes
  - Application and capabilities
  - System landscape roadmap

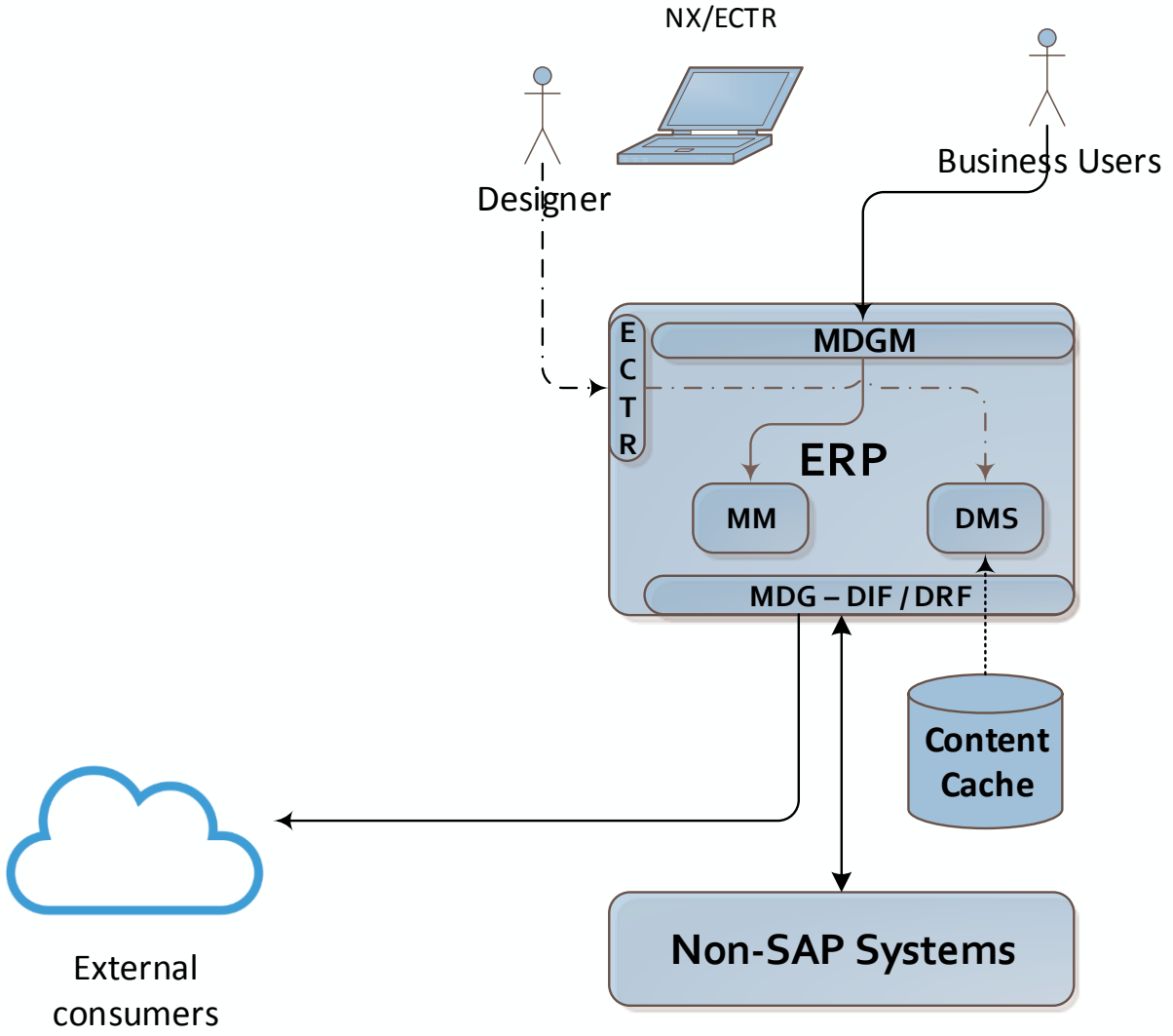
PLM Roadmap - Next steps

- PLM, ECTR and MDG implementation in ERP
- Migration of PLM satellite systems
- Master data cleansing
- Collaboration

PLM / ERP harmonization – ”As-Is”



PLM / ERP harmonization ”To-Be”

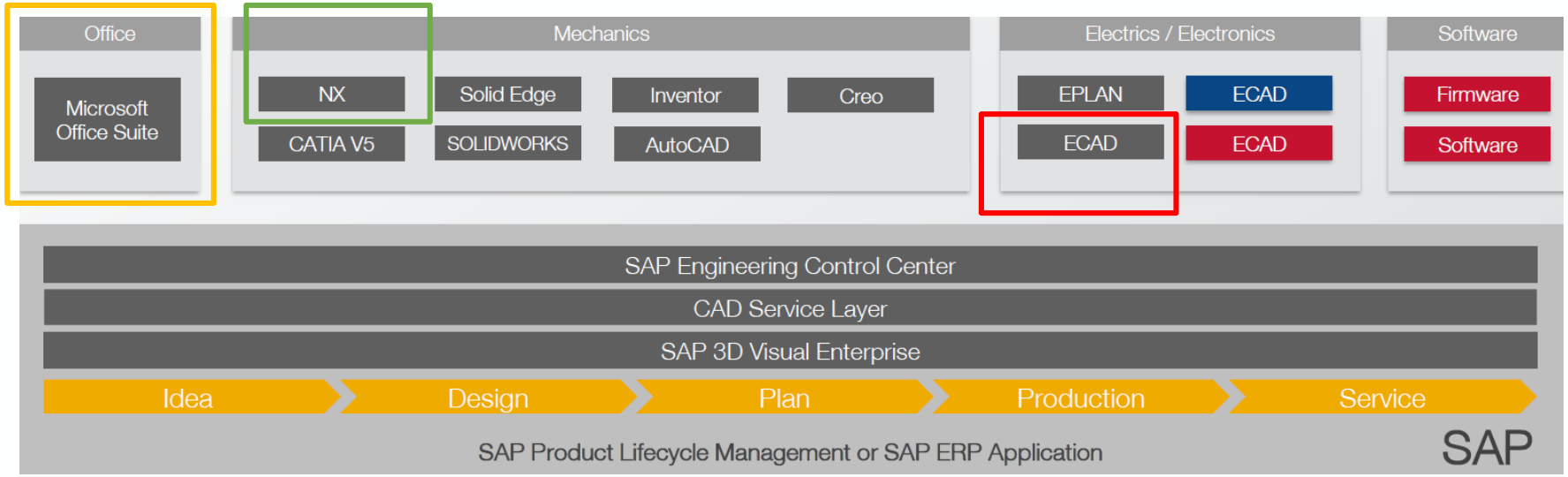


PLM Roadmap – Master data management

- Secure quality of Master Data
- Improve process for management of Master Data
- MDM system LCM 2020 → MDG system

PLM Roadmap – CAD Integration

- Mechanical (existing)
- Office Integration (on-going)
- Electronics – ECAD integration (planning)



Learnings – EA

- Governance of Master data
- Processes and methods will be affected
- Simplify use of Document Type
- Separate Processes from Status network
- Setup a Sandbox asap based on Standard basic data model
- Limit enhancements → request SAP ECTR changes

Summing up

- Business implementation is far more than just a system implementation
- Clear end to end focus for best overall performance
- Clear connection between Company strategy and Enterprise Architecture

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

http://info.asug.com/2019-ac-slides

Q&A

For questions after this session, contact us at

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