

Strategic Parts Management

...with PARTsolutions at MAN Truck & Bus AG (MTB)



Strategic Parts Management

Philip Kraus; Short introduction



Personal data

Company: MAN Truck & Bus AG (MTB)
Job Title: PLM Consultant and Project Leader,
Processes And Methods
From: 11/2004

Projects / Processes

- Strategic Parts Management (PSOL)
- Introduction of CATIA V5/ENOVIA LCA at Nurembourg / Global Engineering Platform
- Process-Analysis and improvement
- PDM Proof of concept 2010
- Assignment of 3D-light formats along the process chain at MTB
- Releasemanagement / Software deployment
- ordered-related 3D vehicle documentation
- Detailed knowledge of business processes at MTB with focus on the “market-to-product” process
-

Contact

MAN Truck & Bus AG



Information Systems & Organization
Development & Validation
Cax Applications & Methods (CIDDC)

Philip Kraus

Dachauer Strasse 667
80 995 München
Telefon +49 89 1580-1866
Telefax +49 89 1580-91 1866

Dipl.-Ing. (DH), Dipl.-Kfm., Dipl.-Volksw.
PLM Consultant
Processes And Methods

Philip.Kraus@man.eu
www.mantruckandbus.com

Strategic Parts Management

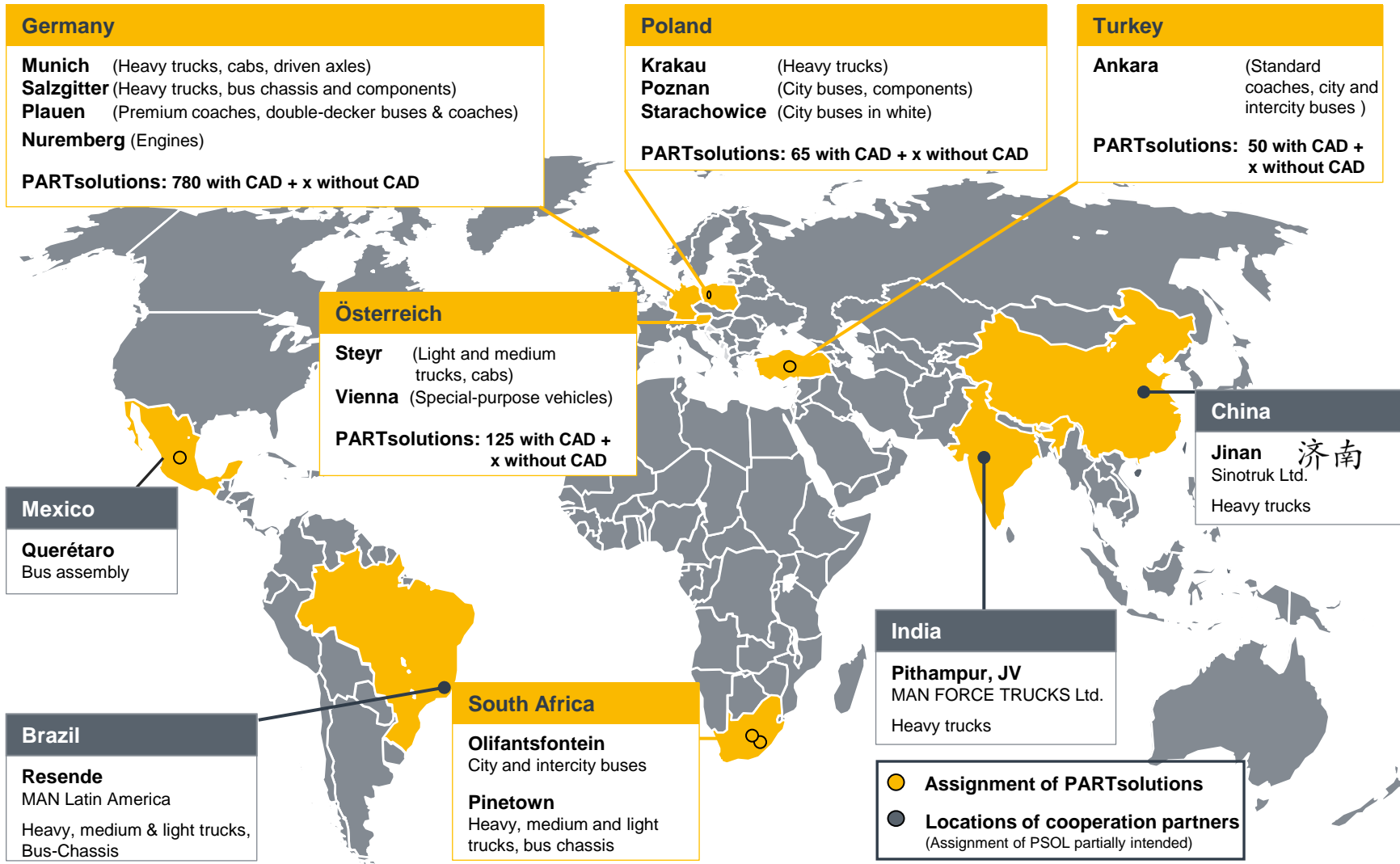
Agenda



- 1 Worldwide assignment at MAN Truck & Bus AG
- 2 Motivation and objectives
- 3 History Parts Management and Chronology
- 4 Geometrical search
- 5 Standard parts; Company standard parts
- 6 Material groups and framework bus
- 7 Conclusion and summary

Strategic Parts Management

...worldwide assignment at MAN Truck & Bus AG





Vision Strategic Parts Management

We can find that part from our data base, which fits our requirements best. This is performed in an efficient and effective way.

Strategic goals:

- Reduction of variance in the context of portfolio management for parts for all phases of the product development process
- Multiple possibilities and ways for searching in the complete set of parts within our systems
- Using synergies by the help of a systemindependant, scalable and global available part management system

Strategic Parts Management

History Parts Management at MAN Truck & Bus AG



Parts Management Common Parts

Strategic Parts Management Complete Part Stock

1976:
COMFICHE:
(Mikrofilm-
basierendes)
Sachmerkmal-
Informations-
System

2000:
NIS-RM/NIS
PartsMan

2006

2008:
PARTsolutions
/PartsMan

1998:
Online
System NIS-
RM und NIS-
CAD

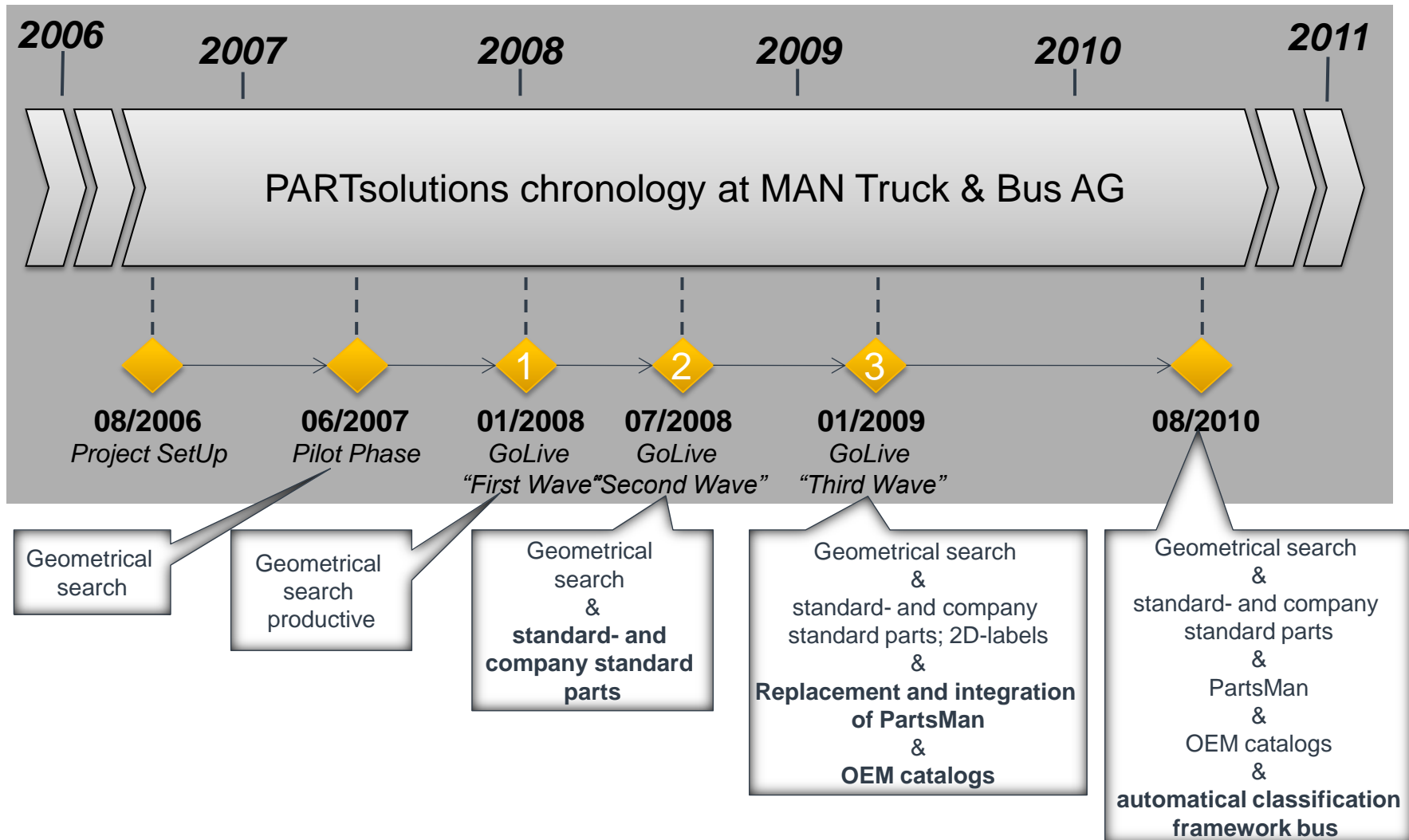
2002:
SAMERKIS/
PartsMan
(Java)

2009:
PARTsolutions



Strategic Parts Management

Chronology / Gradually introduction of PARTsolutions



Strategic Parts Management

Geometrical search



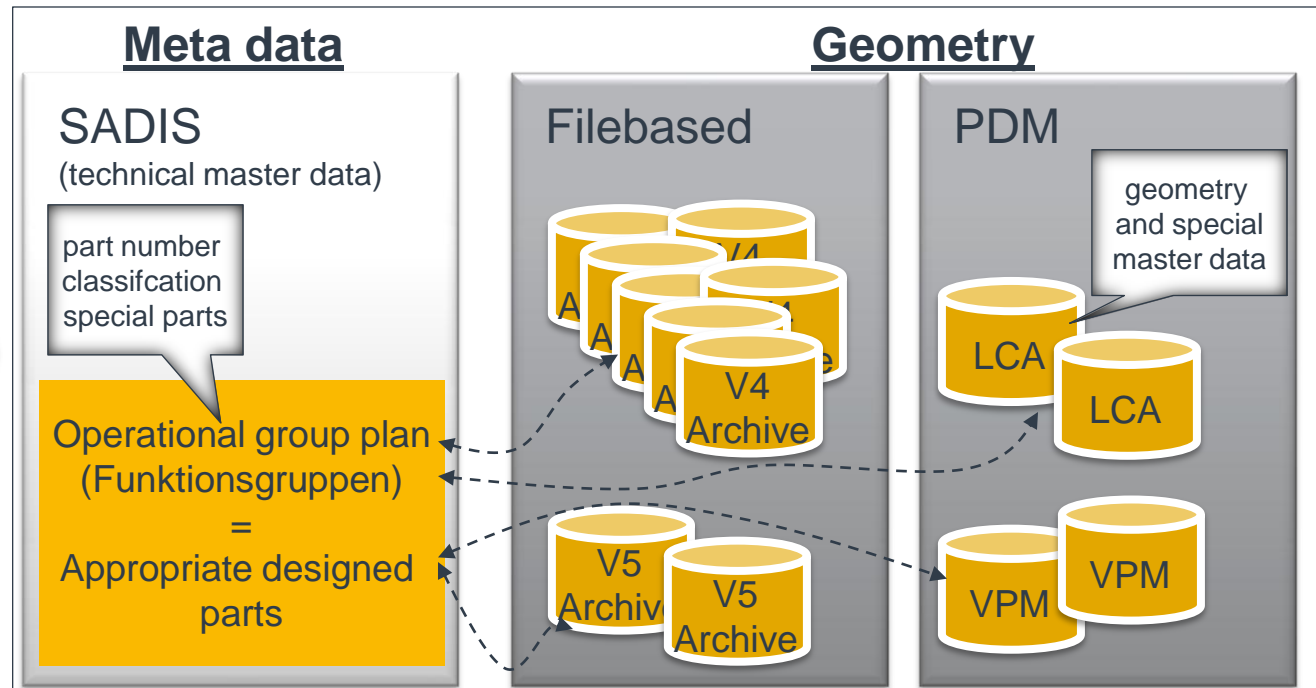
Project step

Objectives

Initial situation

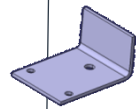
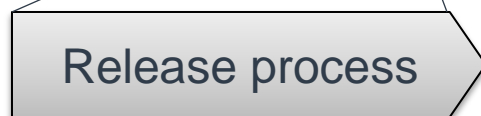
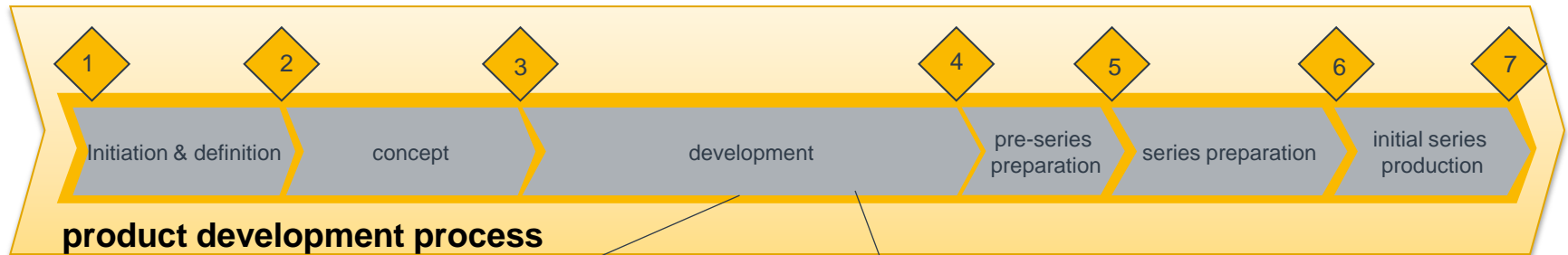
„First Wave“

Introduction of the geometrical search as „one-for-all solution“ ...



Strategic Parts Management

Geometrical search; Overview and integration at MTB

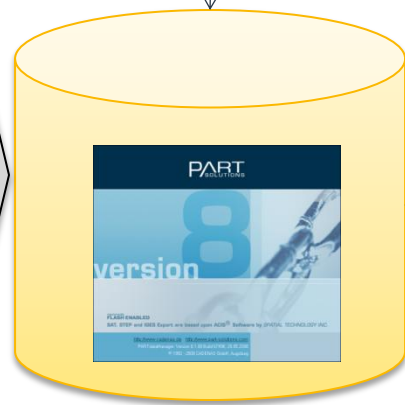


Meta data

EZIS®

SADIS

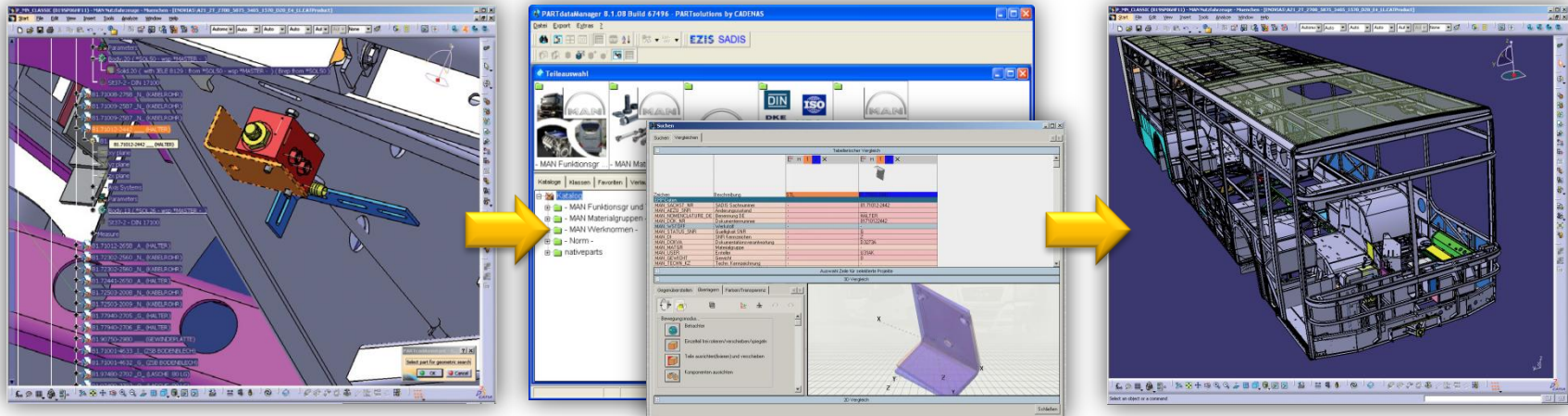
LCA



Integration at MTB

Strategic Parts Management

Geometrical search; Example at MTB



1. Initial Situation

2. Search

3. Find



Example

Benefits of geometrical search for the engineering:

- Geometry as input is equivalent to the mindset of engineers
- Easy browsing in the entire stock portfolio
- Centralized and globalized usable information platform

Strategic Parts Management

Geometrical search; Key facts



- **115,000** „appropriate designed parts“
- **1,020 Users** with CAD at **12 locations** in **5 countries**
- x non-CAD users (purchasing, variant management, standardization, after sales, planning process, ...)
- **Heterogeneous** part stock is also **reusable**
- First-time non-classifiable parts are easily findable
- **Awareness of 3D-geometry** outside of the engineering

Strategic Parts Management

Standard parts; Company standard parts



Project step

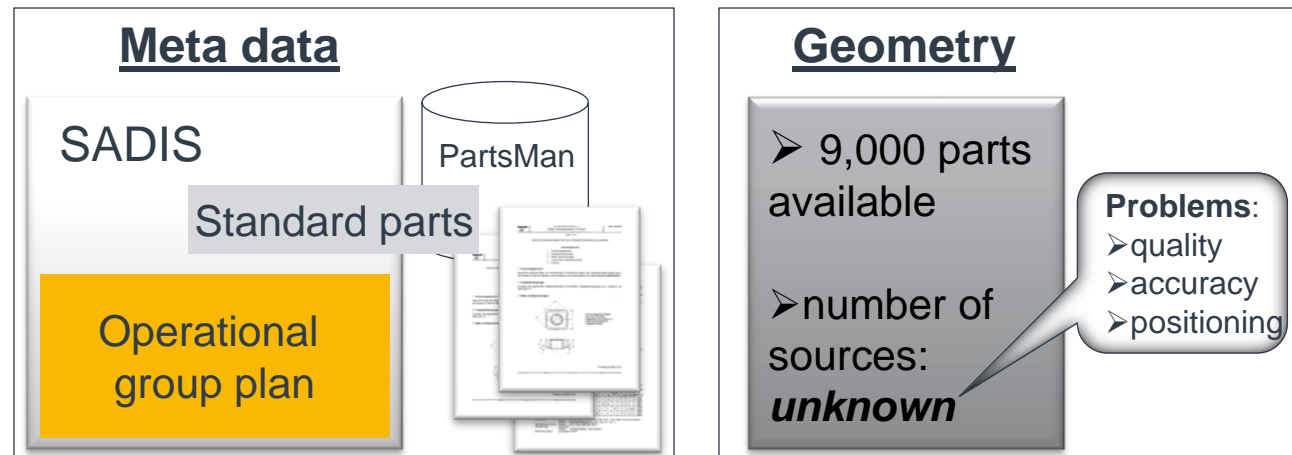
Objectives

Initial situation

Requirements
MTB

„Second Wave“

Integration of standard parts and
company standard parts



- Modeling of **25,000 standard** and company standard parts
- Uniform source of parts and **high quality geometry**
- Outsourcing (fast, good and low priced services)

Strategic Parts Management

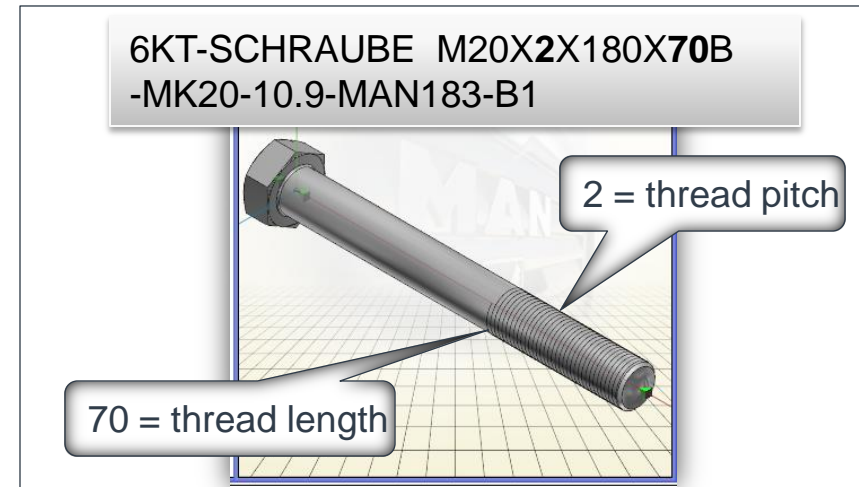
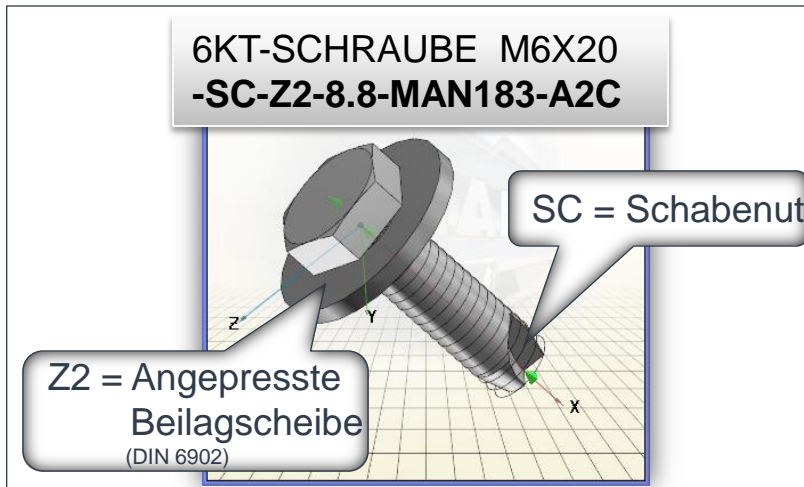
Company standard parts – challenge for CADENAS



Input MTB for CADENAS:

- Financials
- Meta data (SADIS data + PartsMan data + standard sheets)

Examples:



- Uniform and high geometry quality, replaceable parts
- Economy of time in engineering departments
- Utilization of deep knowledge from CADENAS

Strategic Parts Management

Material groups



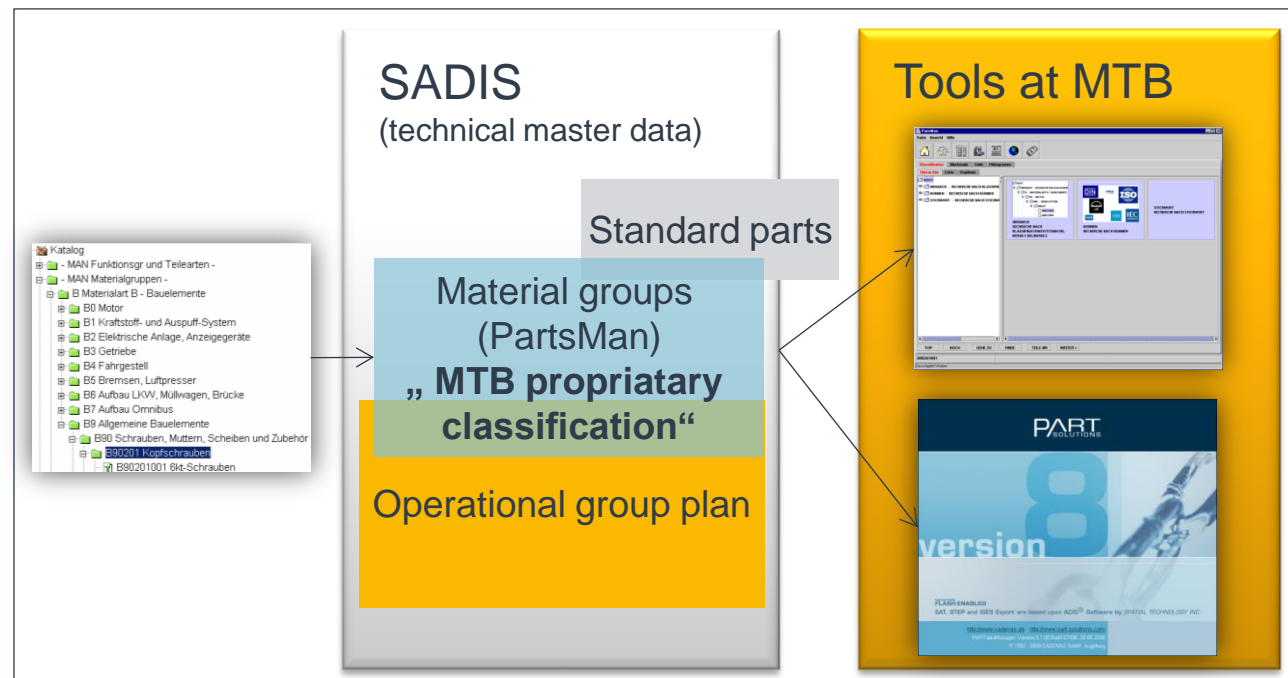
Project step

Objectives

Initial situation

„Third Wave“

Replacement of PartsMan by PARTsolutions.
One system for all...



Strategic Parts Management

Material groups / Integration of PartsMan data in PSOL



Material groups:

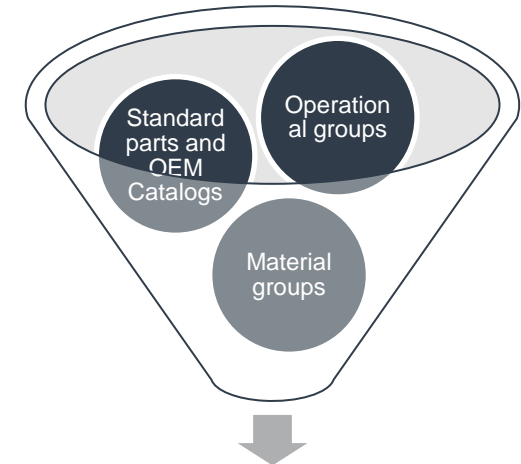
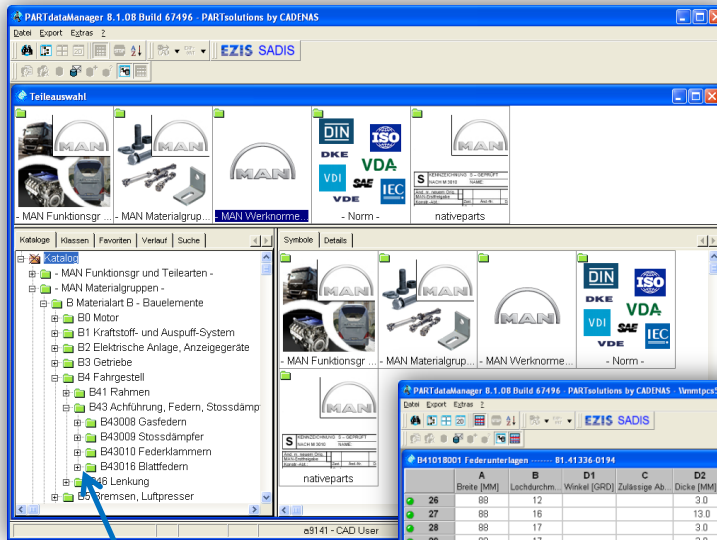
- MTB proprietary classification
- Manual classification, established in 1970
- Continuously worked on by classification team
 - high data quality
- Material groups contains ~113,000 common and reusable parts

Integration of PartsMan data in PARTsolutions:

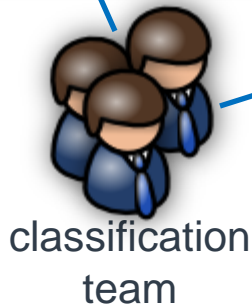
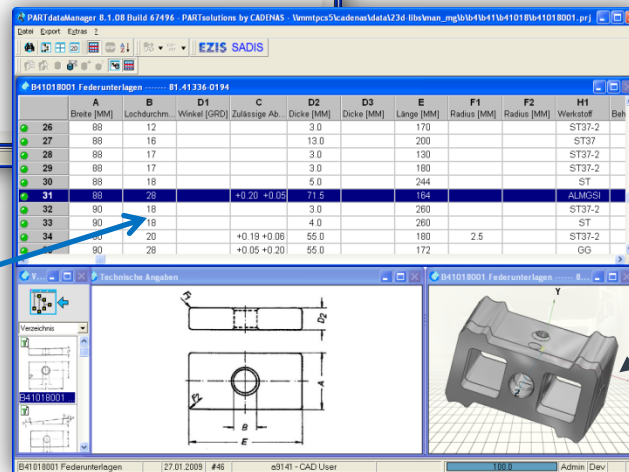
- Single CAD-system
- Only 2D-previews
- Introduction of CATIA V5 in the truck unit
- Low integration in MTB system-landscape
- No OEM catalogs
- Efficiency effects

Strategic Parts Management

Material groups / Integration of PartsMan data in PSOL



One system for all



Material groups are needed, although there are several identical search possibilities at MTB for the same issue.

Strategic Parts Management

Automatical classification framework bus



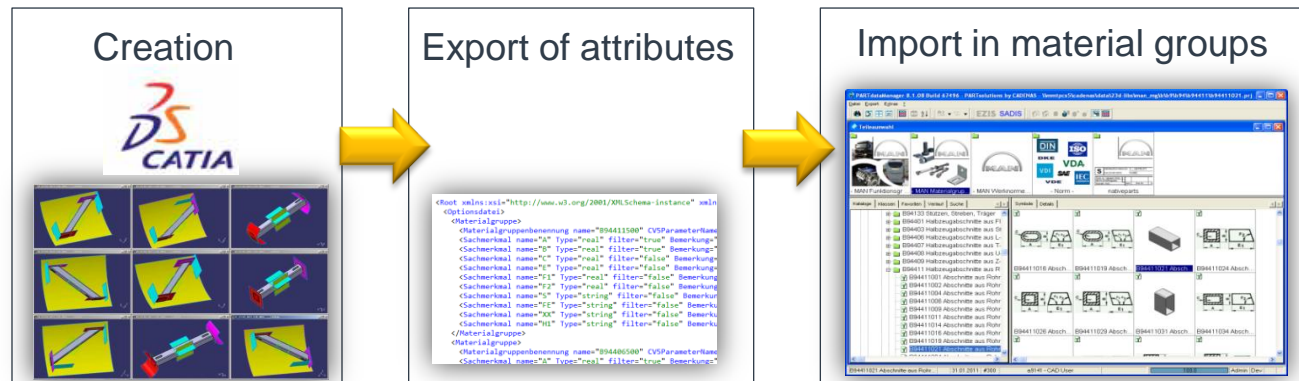
Project step

„Framework Bus“

Initial Situation

huge amount of parts, similar geometry, concurrent engineering in Germany and Poland

Solution

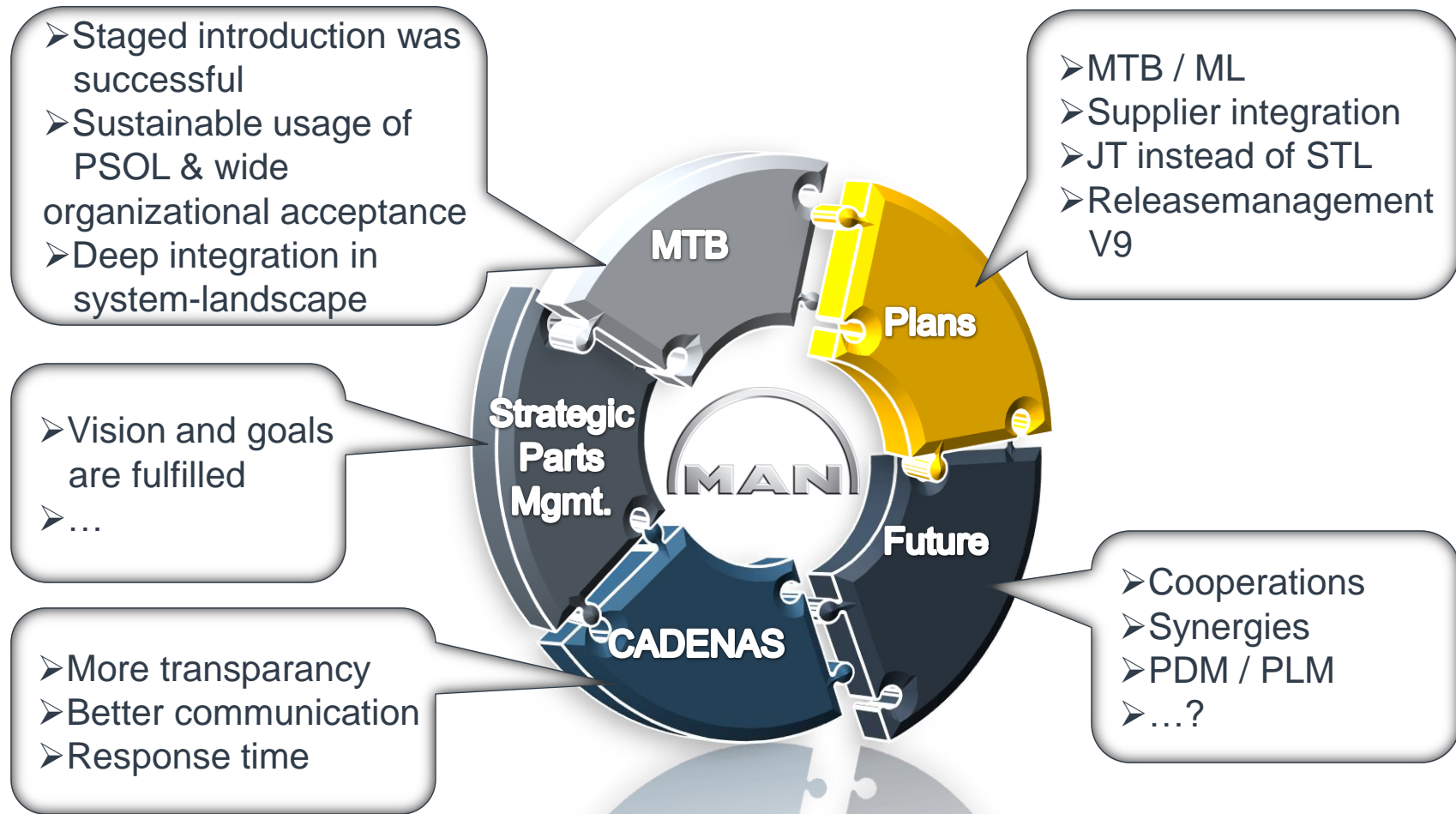


Results

- Automatical classification based on 3D-data, is embedded in a manual classification system (material groups)
- Combination of classification with geometrical search

Strategic Parts Management

Conclusion



Successful project on company level!

Strategic Parts Management

Personal summary



time

- Project was nearly in time
- Only little delay, because of the LCA-interface



quality

- Global targets are reached
- Detail improvements are possible



budget

- Project was in budget
- Some extra budget was needed for unscheduled PartsMan-Integration



On a personal level working together was always on a very good mood. In my point of view the project was successful, too!