

Innovation and Sustainability

Partsolutions@Siemens VAI MT

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Metals Technologies - Overview



Implementation of PARTsolutions as part of the Engineering tool landscape



Next Steps - PARTsolutions 2012

Organization - Four Sectors cover the global trends



Industry	Industry Automation	Drive Technologies		Customer Services	Metals Technologies ¹⁾	
	Rail Systems	Mobility and Logistics	Low and Medium Voltage	Smart Grid	Building Technologies	Osram ²⁾
	Fossil Power Generation	Wind Power	Solar & Hydro	Power Transmission	Oil & Gas	Energy Service
	Imaging & Therapy	Clinical Products		Diagnostics	Customer Solutions	

1) Sector-led Business Unit 2) IPO planned

Metals Technologies

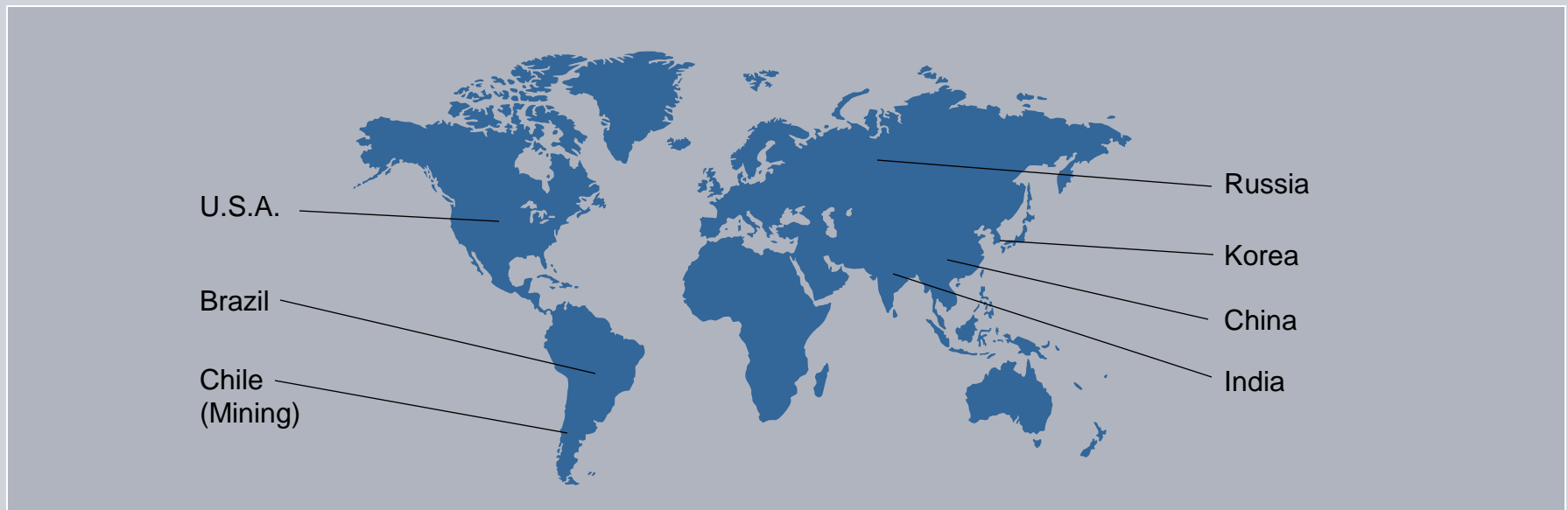
Expertise to serve our customers



Metals Technologies competence centers

- MT Linz (HQ)
- MT E/A (Erlangen)
- MT U.K.
- MT France
- MT Germany
- MT Italy
- MT U.S.A. (Worcester)

Supported by Siemens regional companies in 50 countries worldwide, for example:








Know-how available wherever required by our customers

Metals Technologies – Full liner from ironmaking to the finished product



Industry Sector – Business Unit Metals Technologies

Ironmaking (MT IR)	Steel Plants, Minimills & Env. Techn. (MT SM)	Casting & Rolling (MT C&R)	Electrics/ Automation (MT EA)	Metallurgical Services (MT MS)
				
<ul style="list-style-type: none"> ▪ Agglomeration ▪ Blast Furnace ▪ Smelting / Direct Reduction 	<ul style="list-style-type: none"> ▪ LD (BOF) ▪ Converter Plants ▪ Electric Steelmaking ▪ Long Rolling ▪ Environmental Technology 	<ul style="list-style-type: none"> ▪ Continuous Casting ▪ Endless Strip Production ▪ Hot and Cold Mills ▪ Aluminium mills ▪ Strip Processing 	<ul style="list-style-type: none"> ▪ EA for Steel Plants ▪ EA for Casting & Rolling ▪ EA Modernization – Packages & Products ▪ Electrical Services 	<ul style="list-style-type: none"> ▪ Spares & Components Sales ▪ Maintenance & Repair

**#1 Steelmaking & Casting – #1 Electrics/Automation –
#2 Rolling & Processing – #2 Ironmaking**

Engineering Tool Landscape - 2007

Due to historical reasons many different Engineering tools were in use at Siemens VAI MT in various combinations and versions.

PDM

Productstream Professional

Matrix One

No PDM

SAP PLM

Authoring

AutoCAD

Inventor

NX

Solid Edge

Handling of
Standard and
Catalog Parts

???

2008 – 201X Teamcenter implementation project

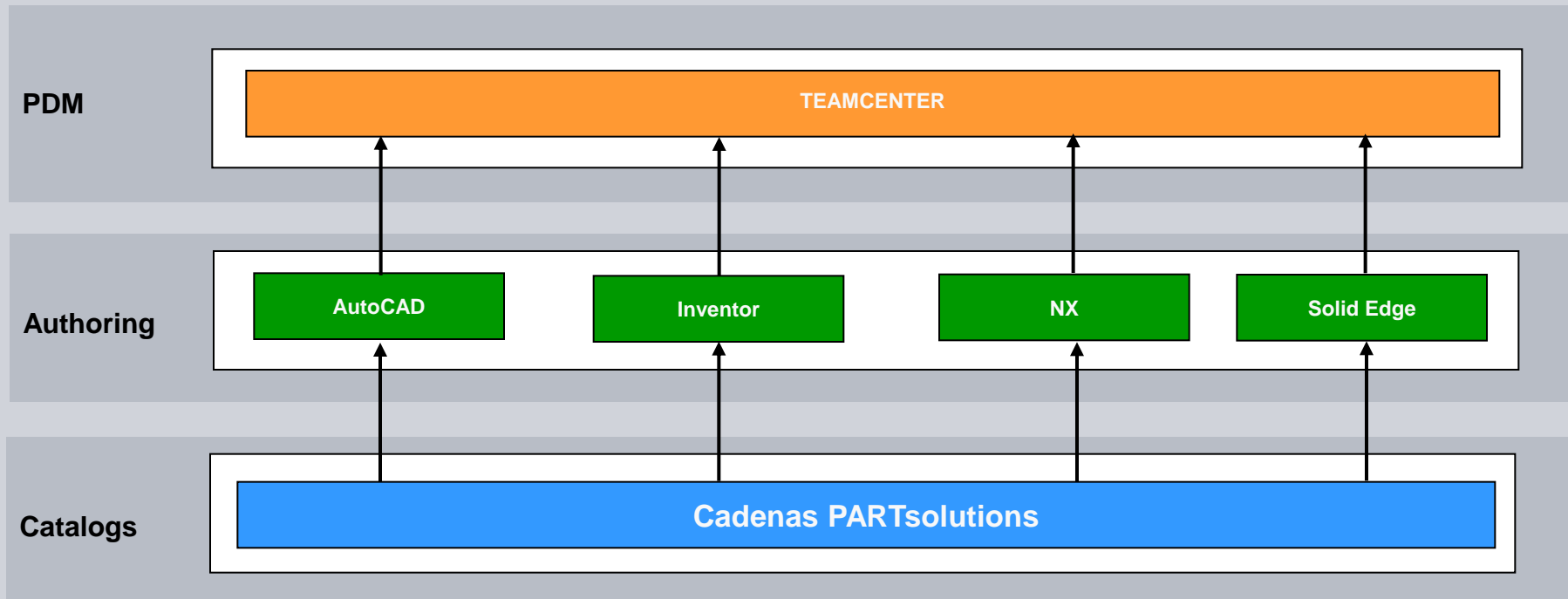
In early 2008 the Teamcenter implementation project was started to harmonize the heterogeneous engineering platforms.

Main target was the implementation of **one global engineering platform**

Planned Engineering Tool Landscape - 2008

Reduction of PDM systems to one PDM backbone.

Definition of Cadenas PARTsolutions as tool for catalog parts.



Why PARTsolutions?

- Support of multiple CAD systems
- Support of various PDM systems
- Many different supplier catalogs already available
- Already in use at MT Linz and MT France

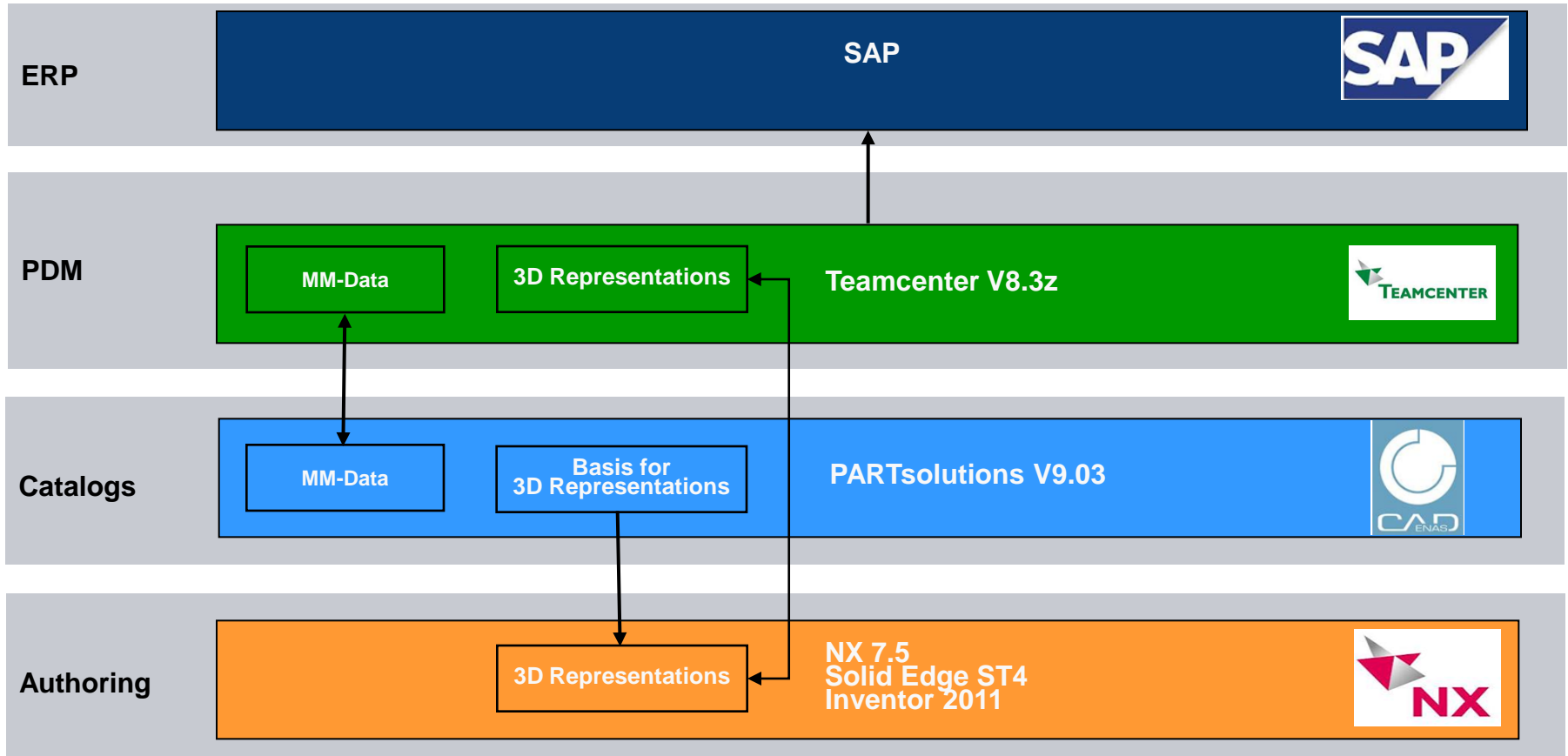
Decision from MT management:

„Cadenas PARTsolutions is the one and only worldwide source for standard and catalog parts!“

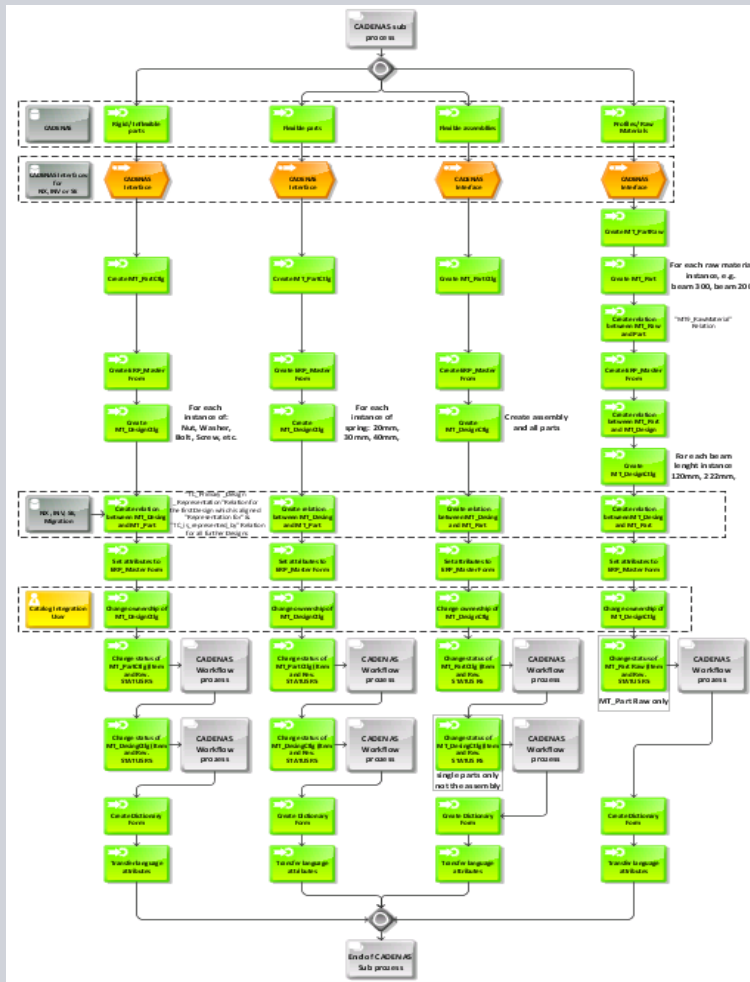
Scope of PARTsolutions implementation

- Provide standard and catalog parts for all common 3D CAD systems
- Automatically create and maintain 3D data inside Teamcenter
- Provide necessary BOM and Material Master data
- Provide functionality for handling existing fluid parts
- Provide functionality for handling existing E&A parts
- Provide Migration functionality for already used standard parts

Architecture – Status December 2011



PARTsolutions / Teamcenter – Main challenge



Due to Teamcenter data model and business requirements we had to consider:

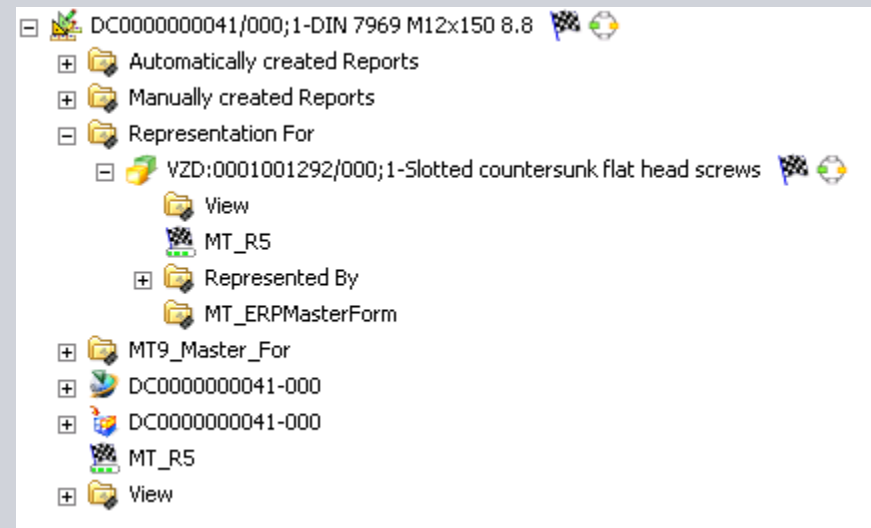
- 4 different use cases for different types of parts
- 3 different 3D CAD systems (Solid Edge, NX, Inventor)
- Up to 12 single steps to create ONE standard part

PARTsolutions / Teamcenter – Solution

Implementation of one script to distinguish between the different use cases and CAD systems and to execute all necessary steps without any further user interaction.

On each user export this script is executed in the background that...

- ... creates Teamcenter Parts
- ... creates Forms for SAP, Dictionary
- ... creates Teamcenter Designs
- ... aligns Part and Design
- ... changes owner of Design
- ...



Next Steps – PARTsolutions 2012

- Replace existing Teamcenter interface with standard solution by Cadenas when available
- Improve performance of PARTsolutions in a distributed engineering environment
- Evaluate future use of eCATALOGsolutions
- Evaluate use of PARTsolutions with external partners
- Evaluate best practice for Migration of standard parts

Thank you for your attention!



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