

A close-up photograph of a black and white checkered chessboard. Several metal bolts and nuts are placed on the squares, along with a few white plastic chess pieces, suggesting a strategic game or assembly process.

**PART**  
SOLUTIONS

## THE STRATEGIC PARTS MANAGEMENT

SUSTAINABLE COST REDUCTION  
FOR STANDARD, SUPPLIER AND COMPANY PARTS  
FOR ENGINEERING AND PURCHASING

# STRATEGIC PARTS MANAGEMENT

## Why is Strategic Parts Management important for your success?

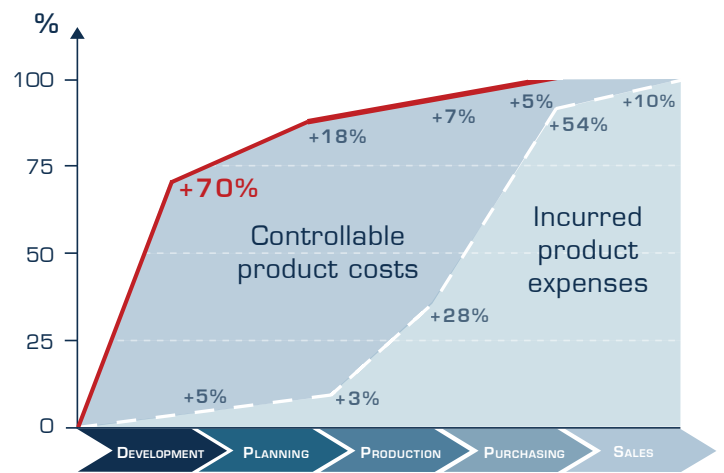
70% of controllable product costs can be traced back to planning during the development phase.

The Strategic Parts Management PARTsolutions by CADENAS helps you utilize the maximum savings potential in your company.

Already during the design phase, you will reach a higher degree of standardization of your components, and thus reduce costs in the long run, which at a later point can not be influenced anymore.

With CADENAS' Strategic Parts Management PART-solutions, you cut costs at the right spot!

**154 of the 1,000 top global players from Germany rely on PARTsolutions by CADENAS.**



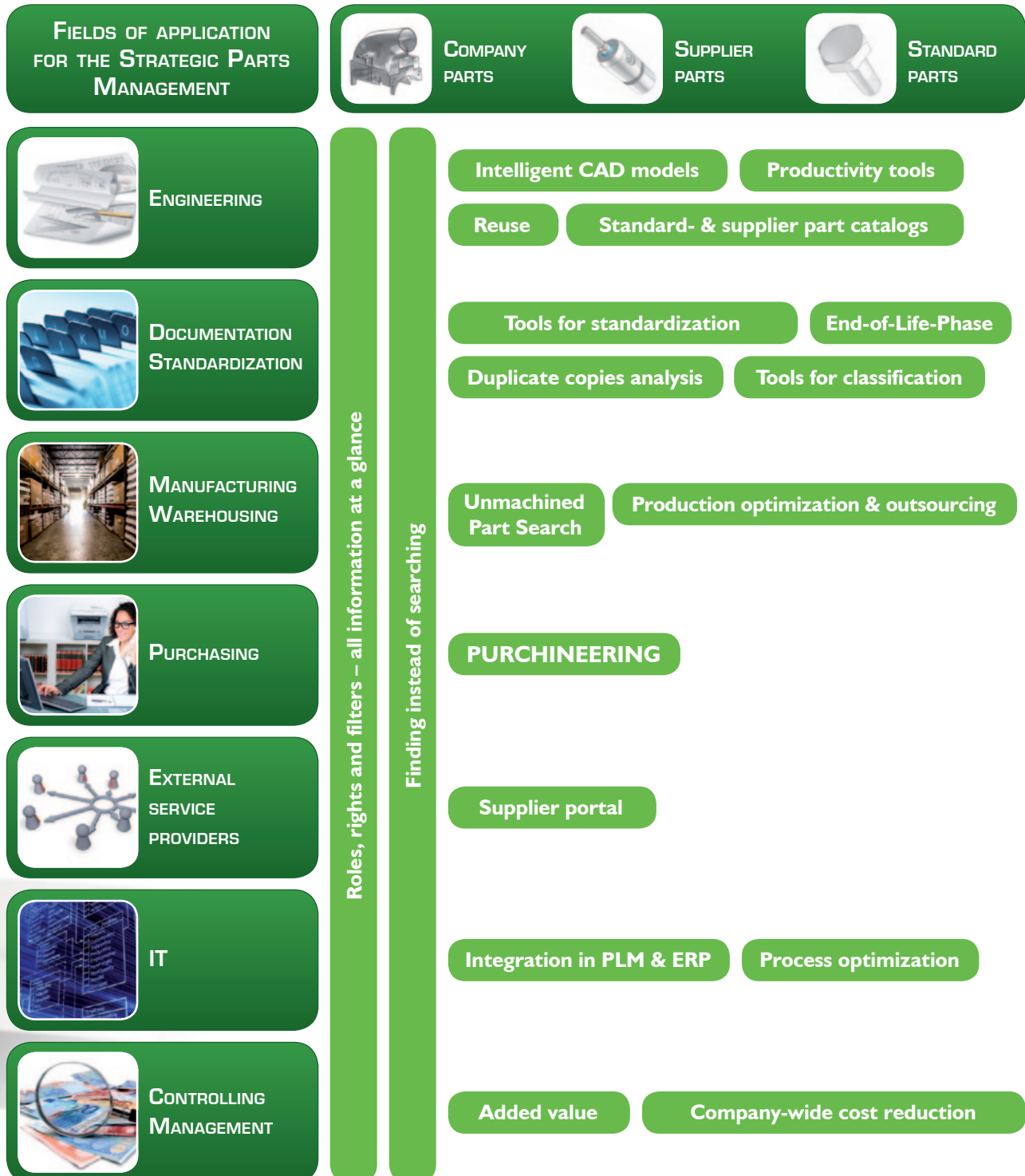
## Your benefits thanks to Strategic Parts Management

- Costs are reduced permanently and effectively
- Processes are accelerated
- Multiple duplicate parts are reduced
- All information at a glance
- Find instead of search
- More freedom for creative ideas  
= Engineering instead of managing
- Spares sales resources



# ADDED VALUE FOR EVERY DEPARTMENT

The Strategic Parts Management PARTsolutions offers many departments considerable benefits.



# How LARGE IS YOUR PARTS MASTER?

**Be aware that the part acquisition costs are only the tip of the iceberg!**

The highest saving potential is not realized through purchasing prices, but at a much earlier stage. By optimizing the reuse rate of available parts and reducing multiple parts, you can influence the costs for your product during development to an extent that is not possible at a later point of time.



## How much does it cost to create a record for a new part?

Many researches figure up their part costs as follows:

Source	Examination Object	Costs in EUR
Ehrlenspiel	Administration of a purchased part	ca. 2.000,--
Hichert	Inauguration and maintenance of a part	850,--
Häusele	Administration costs per part	1.261,--
IGS	Average costs for administration of a part	1.200,--

## Multiple parts = Bad

You don't think so? Here's the proof!

A large part multiplicity means a higher expenditure of time in order to find the right parts. In addition, this means a large number of parts and higher costs for the whole company.

### Multiple parts = Time x Cost

Universally known is that time is money:

$$\text{Time} = \text{Cost}$$

In connection with the first assumption the result is:

$$\text{Multiple parts} = \text{Cost} \times \text{Cost} = \text{Cost}^2$$

As already recognized in church, money is the root of all evil:

$$\text{Cost} = \sqrt{\text{Bad}}$$

In connection with the previous equation we prove:

$$\text{Multiple parts} = \sqrt{\text{Bad}^2}$$

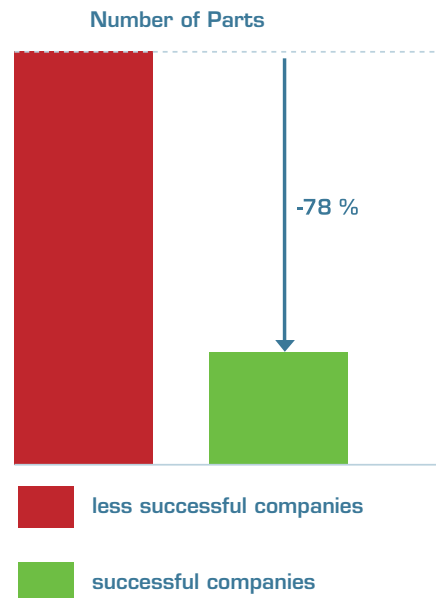
$$\Rightarrow \text{Multiple parts} = \text{Bad}$$

# REDUCE MULTIPLE PARTS!

## Successful companies have fewer parts!

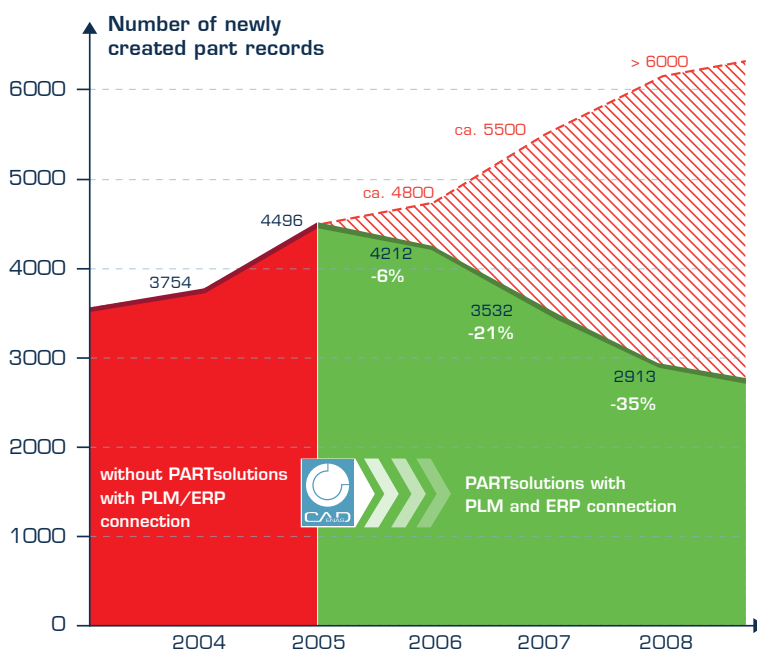
A study by Prof. K. Ehrlenspiel affirms that the respective market leaders have fewer parts in their industry.

Simply reduce your parts stock with CADENAS' Strategic Parts Management PARTsolutions!



## Other companies are already doing it:

### Successful implementation of the Strategic Parts Management PARTsolutions



»By connecting to the SAP material management, 35% less purchased parts were newly applied. Here the savings for process costs were enormous.«



PETER ZANDER  
KUKA Systems GmbH

**KUKA**

KUKA Systems GmbH



# MANY NOTABLE CATALOGS ARE AVAILABLE – TREND IS GROWING!

## Annual growth of catalogs



## Selection of manufacturer catalogs

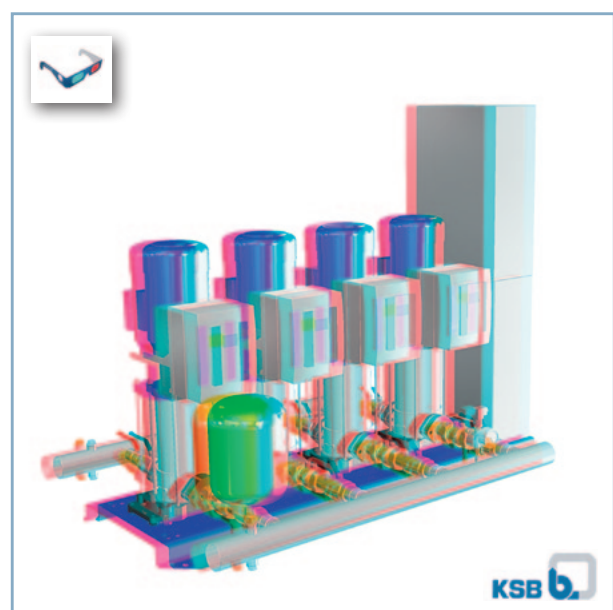
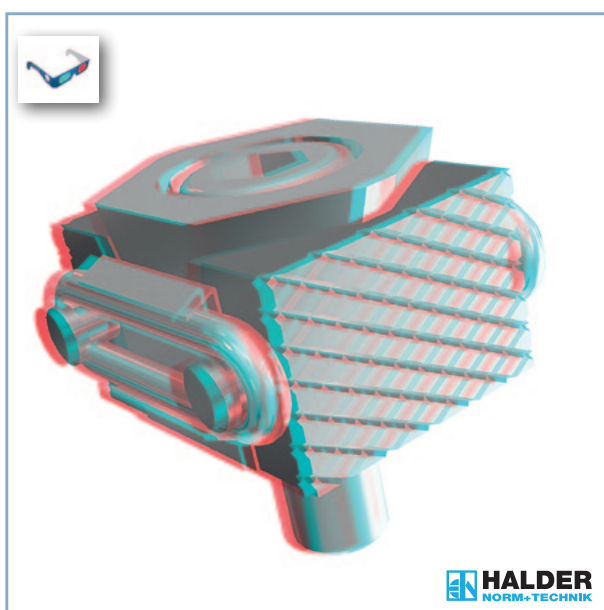
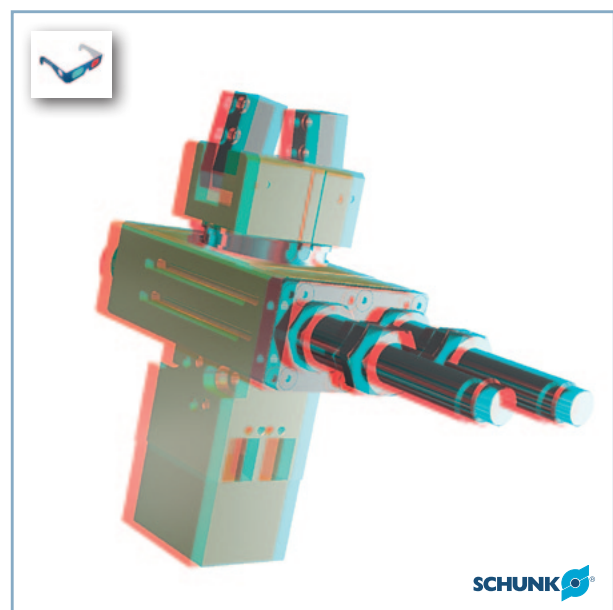
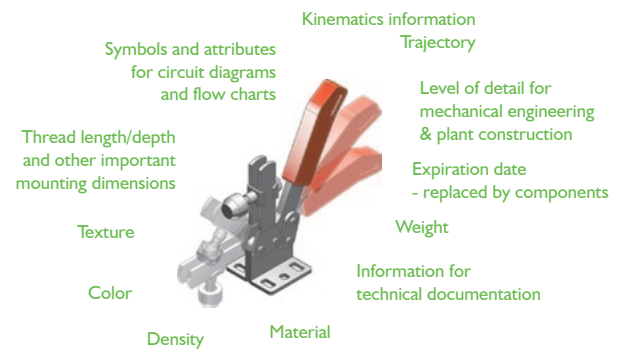


...and many more.

# SMART PARTS

## Intelligent 3D CAD Models

The Strategic Parts Management offers intelligent information about the available CAD components. Aside from pure CAD geometries, engineers also receive kinematic functions, collision observations, stroke deviations, etc.



# ALL INFORMATION AT A GLANCE!

## The universal research system for engineers and purchasers

In order to be able to import all information at once, the Strategic Parts Management by CADENAS has numerous interfaces to other parts information systems, such as PLM and ERP systems.

The Strategic Parts Management offers companies an all-encompassing pool of knowledge, which can be used in the entire company by different departments. Thus engineers and purchasers receive all business and technical information at once.

ERP PART NUMBER	LOC1	LOC2	LOC3	MAX. WEIGHT	LAUNCH	PRICE	MAX. NAME	ACTIVE STATE	REQUESTED STATE	END	S	S	S
Part Number	Series	Manufacturer	Product	Weight (kg)	Category	Price (€)	Material	Availability	Delivery Status	Identification	Volume (mm³)	Weight (mm³)	Length (mm)
17	1125.07			0.8	Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression			27.0	0.0	200
22.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
25.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
28.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
31.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
33.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
37.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
39.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200
41.5	1125.0				Valve 2, Valve 1, 1, 1, 1, 1	16.00		Progression	Progression		27.0	0.0	200

- CAD Information  
(Geometry, weight, etc.)
- PLM Information  
(preferred rows, document, etc.)
- ERP Information  
(price, availability, etc.)

➔ **All information at a glance  
WITHOUT changing systems**

= **Strategic Parts Management**

"Looking for information in many different sources across many different interfaces? That's history! Now, since all the necessary information is available for every user at a glance in one system, the effort required for information search is able to be reduced by 40% at the SMS Siemag AG, thanks to the Strategic Parts Management."



BERND POSTAREMCZAK  
SMS Siemag AG

**SMS  
SIEMAG**  
SMS group



# OPEN TO ALL SYSTEMS

Regardless of which CAD-, PLM- or ERP system you are using at your company, CADENAS' PARTsolutions is open to all systems.

The Strategic Parts Management merges all relevant information of the different systems onto one platform.



"Voith has 6 different CAD systems, but only one parts management system. This decreases the management effort for standard- and supplier parts considerably!"

FRIEDRICH SPITZER  
VOITH IT SOLUTIONS

**VOITH**  
Engineered reliability.

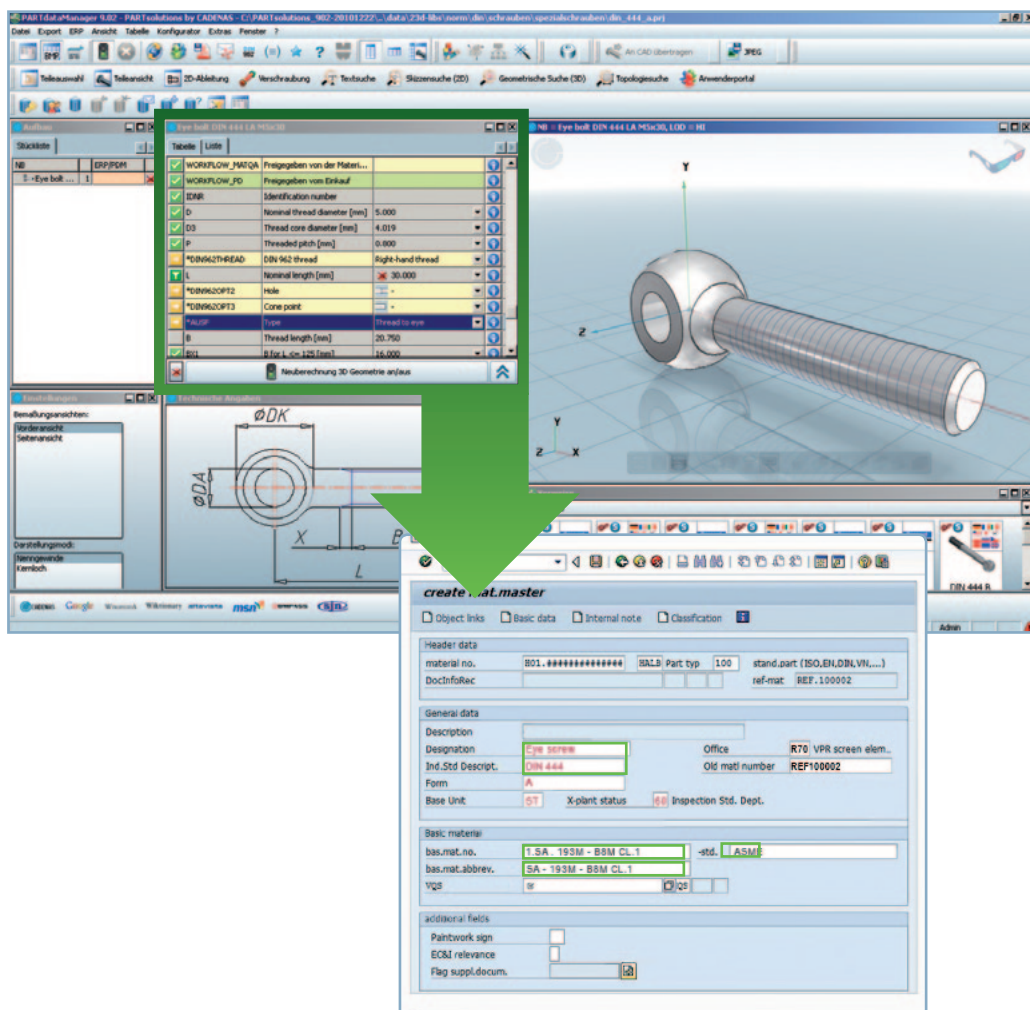
# ERP & PARTS MANAGEMENT

The master data of your ERP system is always maintained properly by connecting the Strategic Parts Management CADENAS PARTsolutions to your materials management system.

## Automatic import of material data

By the integration of the ERP system, material data fields are automatically filled with PARTsolutions-attributes. If a user selects a product record, the material data is automatically imported to the query screen of the ERP system.

Master data, maintained in a complete and accurate way, have a positive impact on the parts multiplicity in companies: duplicate copies are avoided, hardly no parts similar to available parts are ordered, etc.



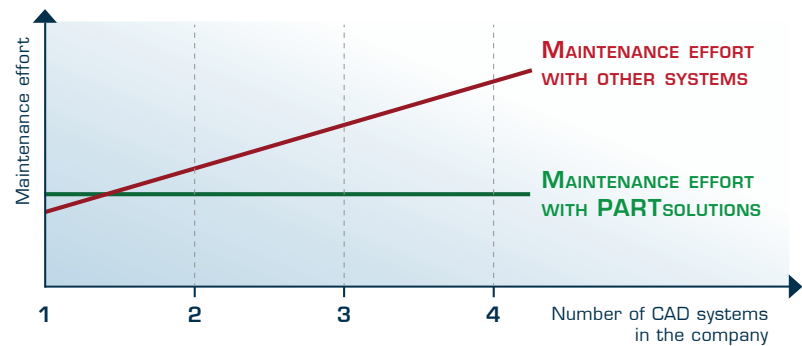
# COMPANY PARTS & STANDARDS

Many companies already create and maintain their factory standards with CADENAS' Strategic Parts Management PARTsolutions.

## Multi-CAD ability

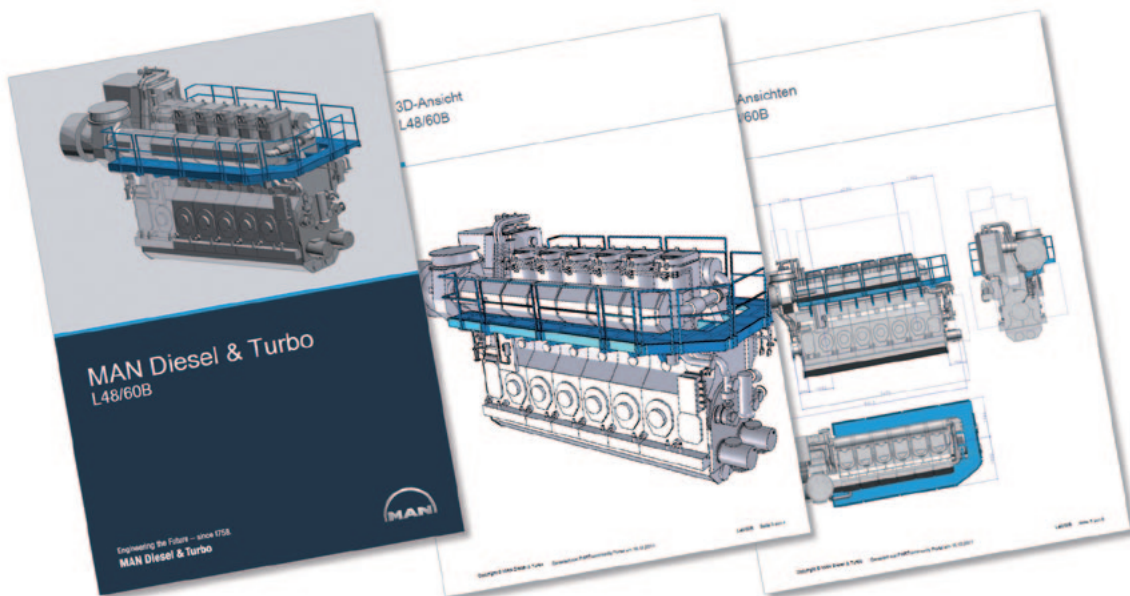
PARTsolutions is capable of multi-CAD, which means it is irrelevant how many CAD systems are in use at your company.

The Strategic Parts Management PARTsolutions dramatically reduces your internal maintenance effort, whenever more than one CAD system is used.



## PDF data sheets

With the Strategic Parts Management you can easily create PDF files of technical data sheets.
























# CLASSIFICATION VS. INTELLIGENT FINDING

The way information is processed and found in your company depends on how your employees work, on your business processes and the master data of your parts.

## Find the method that suits you best

Whether semiautomatic classification or intelligent finding, the innovative functions of CADENAS' Strategic Parts Management PARTsolutions offers the best solution for both areas.

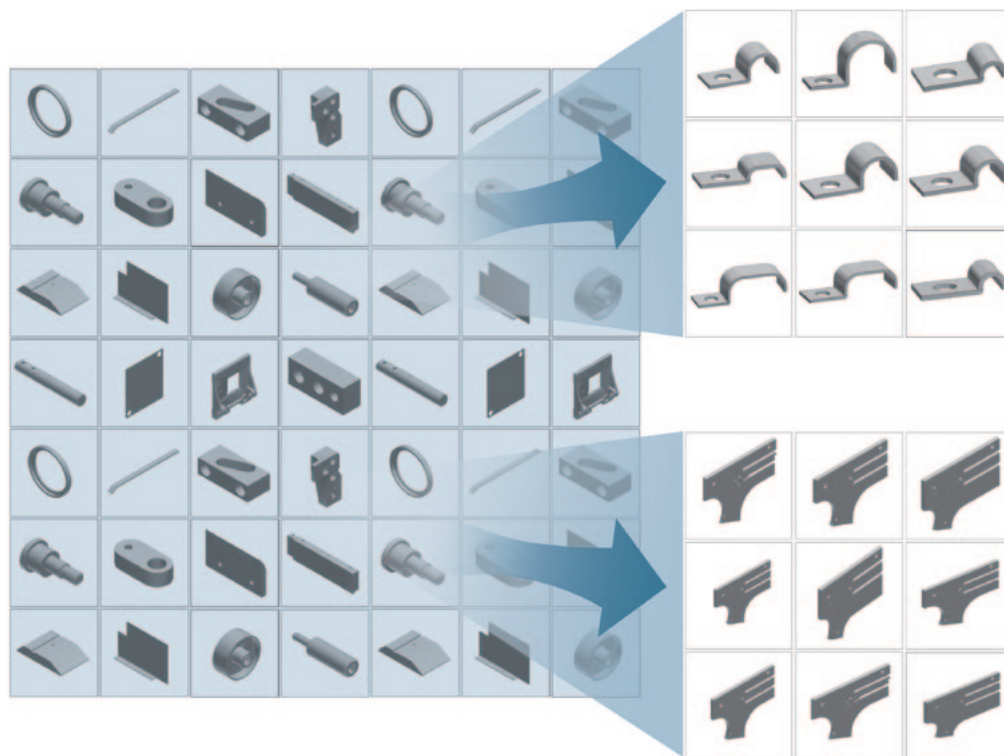
	Traditional classification	Semiautomatic classification with PARTsolutions	Intelligent finding with PARTsolutions
<b>Classification system</b>	 Necessary to set up a classification system	 Necessary to set up a classification system	 No effort
<b>Classify</b>	 High effort	 rough classification automatically, fine structuring manually	 No effort
<b>Compliance of classifier/user</b>	 Medium	 Medium	 High
<b>Operation &amp; Training</b>	 Low training efforts, but knowledge about classification system is necessary	 Simple operation, but knowledge about classification system is necessary	 User has to work strategically, intensive training is necessary
<b>Ignorance (disuse) possible through user?</b>	 Yes	 Yes	 No, background search points out parts to the user
<b>Precise search for a definite class and defined values?</b>	 Yes	 Yes	 Conditioned
<b>Display of invalid values</b>	 No	 No	 Yes, but innovative proposals as well
<b>Which parts is it suitable for?</b>	Simple and complex parts with slight deviations regarding type and quantity of the features, parts without CAD geometrics or adhesives, oils, electric parts where the external form is irrelevant	Simple and complex parts with slight deviations regarding type and quantity of the features, parts without CAD geometrics, oils, electric parts where the external form is irrelevant	Parts that can be simply sketched, complex parts with a distinctive topology, CAD geometrics

# SEMIAUTOMATIC CLASSIFICATION

It is often very complex to classify parts master data manually. CADENAS' innovative technology allows you to effectively structure and clean up chaotic parts master.

## Semiautomatic classification and data structuring

The semiautomatic classification of your parts master by means of Strategic Parts Management, significantly reduces the effort required for the manual allocation of existing parts into a class system.



CADENAS PARTwarehouse solution semiautomatically builds up a classified structure of your parts data base. PARTwarehouse identifies similar components through geometrical or textual similarities and pre-classifies them.



# CLASSIFICATION

## Classification & eCl@ss

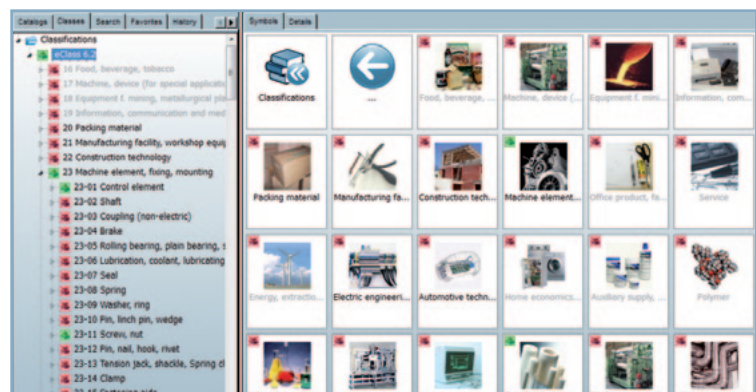
CADENAS has been a member of the registered association eCl@ss e.V. since April 2008 and uses eCl@ss for classification projects, etc.



CADENAS successfully classified single parts, assemblies, machine and plant systems in numerous industrial customer projects according to the eCl@ss standard. CADENAS' software solution provides many important features, like the textual and geometric clustering.

CADENAS advises you when choosing the most suitable classification system for your company, e.g. eCl@ss and also supports you when building up your own class system.

With 38,000 product classes and 16,000 features, eCl@ss covers the majority of goods and services offered worldwide.



## Available tools

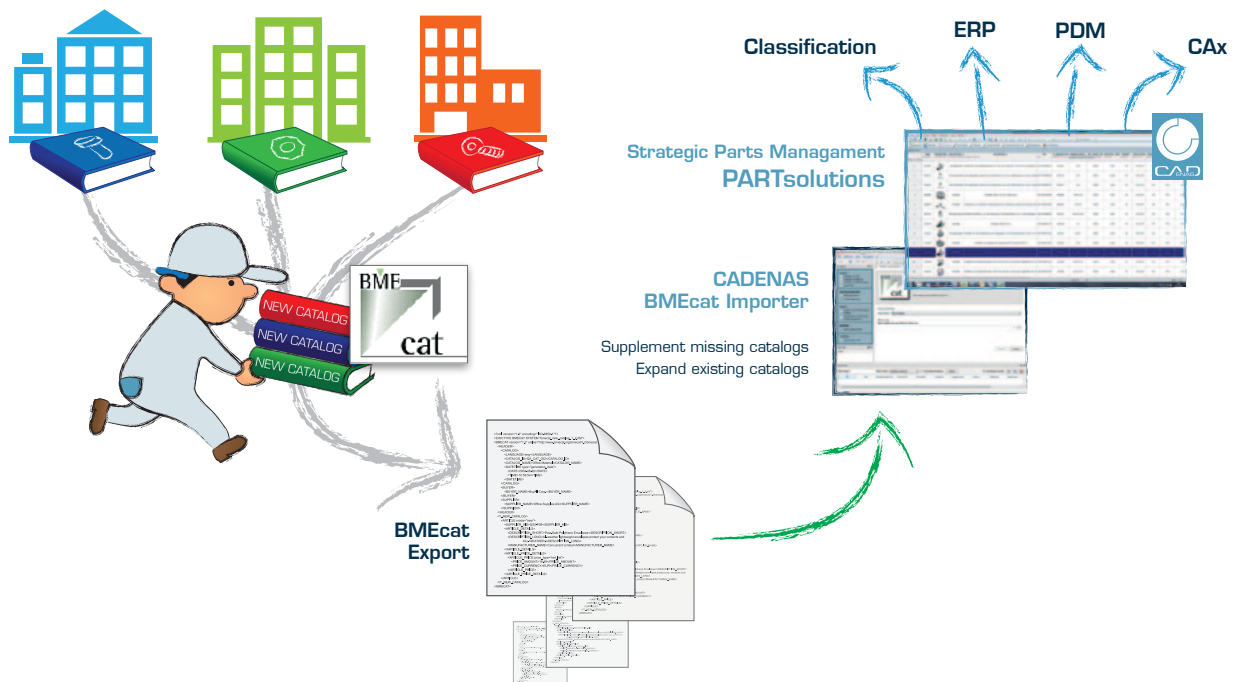
CADENAS' Strategic Parts Management PARTSolutions with its Geometric Similarity Search GEOsearch and PART-warehouse, provides tools that help you to structure and clean existing master data and create new master data files.

These are the possibilities CADNEAS' software solution offers:

- Summarize data records with textual and geometric clustering
- Simple allocation of master data records to the PARTSolutions catalogs
- Generate textual and geometrical duplicate copy reports automatically
- Generate a designation catalog according to the corporate terminology
- Automatic classification by rules and geometry
- Import of the data records classified by eCl@ss into PARTSolutions, SAP, etc.

# BMEcat & MANUFACTURER CATALOGS

Numerous manufacturer catalogs of the Strategic Parts Management PARTsolutions are available, as a basis for creating and cleansing master data. Further manufacturer catalogs can be added via CADENAS BMEcat importer at any time.



BMEcat, developed by the Federal Association of Materials Management, Purchasing and Logistics e.V., is a XML-based standard for the transmission of electronic product catalogs and constitutes the basis for an automated exchange of product information between manufacturers, distributors, suppliers and your business.

The digital product data can include master data like:

- Order number
- Short- & stock description
- Quantity of packaging
- Scheduled time of delivery
- European Article Number (EAN)
- eCl@ss number
- various language versions
- and many more

## SHORT OVERVIEW OF INTELLIGENT FINDING

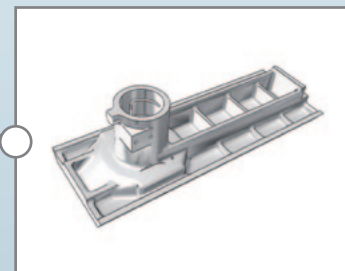
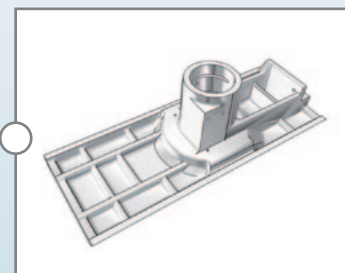
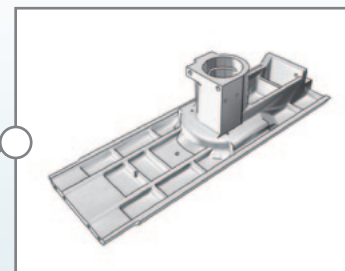
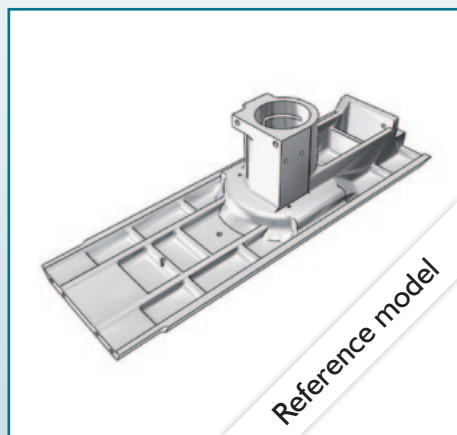
CADENAS opens up totally new possibilities to engineers and purchasers for finding product information and CAD data of standard-, supplier- and self-designed parts in an intelligent way.

Unlike with the traditional classification of parts master, users neither have to learn a class system, nor adapt their search behavior to the system.

All search methods can be combined in a cascading way.

### The Geometrical Similarity Search (3D)

Beginning with a reference part or the rough sketch of a 3D CAD model, standard-, supplier- and self-designed parts are compared to your parts database and recommended.



**Your link for more information**

[www.cadenas.de/intelligent-finding/geometric-search](http://www.cadenas.de/intelligent-finding/geometric-search)



## SHORT OVERVIEW OF INTELLIGENT FINDING

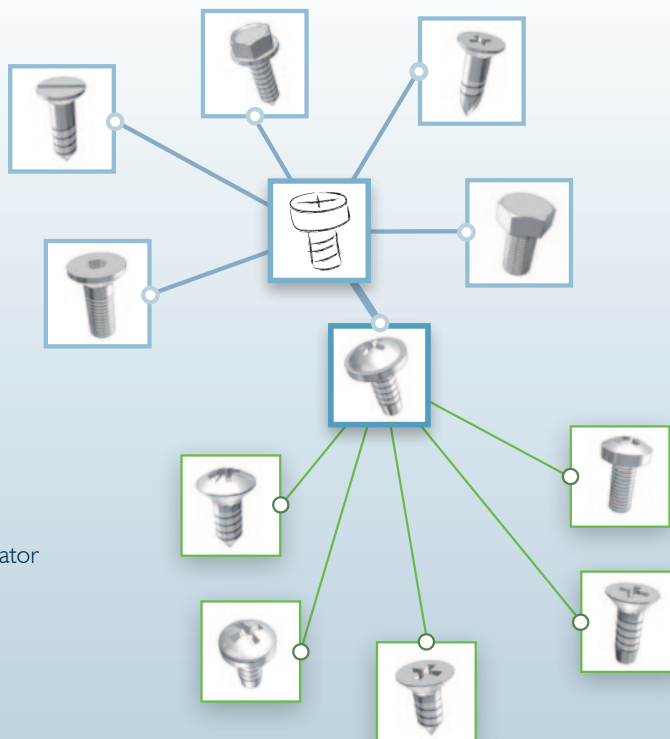
### The Cloud Navigator

The Cloud Navigator is an innovative search function that allows you to navigate quickly and easily within vast data amounts to the desired result.



#### Your link for more information

[www.cadenas.de/intelligent-finding/cloud-navigator](http://www.cadenas.de/intelligent-finding/cloud-navigator)



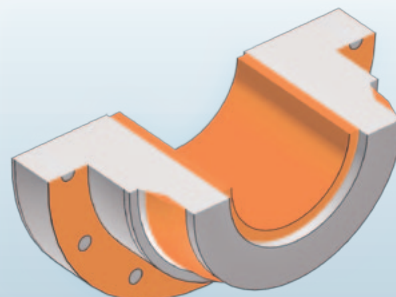
### The Unmachined Part Search

With the Unmachined Part Search of the Strategic Parts Management you will find the matching unmachined part on the basis of a designed finished part within the existing data base.



#### Your link for more information

[www.cadenas.de/intelligent-finding/unmachined-part-search](http://www.cadenas.de/intelligent-finding/unmachined-part-search)





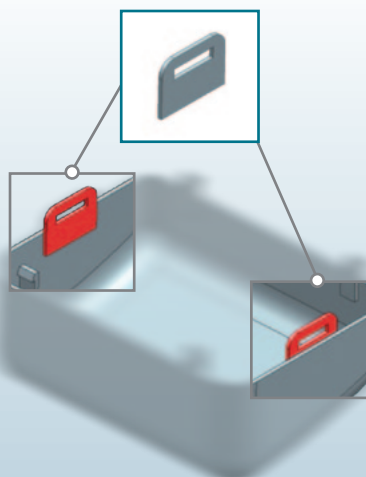
## The Partial Search

CADENAS Partial Search allows you to separate segments of an extensive group of parts and search within the existing data base for components and assemblies with similar partitions.



### Your link for more information

[www.cadenas.de/intelligent-finding/partial-search](http://www.cadenas.de/intelligent-finding/partial-search)



## All search functions in detail

You will find these and other intelligent search methods for engineers and purchasers in our brochure "Finding instead of searching".



### Your link to the brochure

[www.cadenas.de/intelligent-finding](http://www.cadenas.de/intelligent-finding)



# PURCHINEERING

## UNITE PURCHASE & ENGINEERING

PURCHINEERING is a combination of the words “purchase” and “engineering” and aims at combining the purchasing and engineering processes.

### The Strategic Parts Management overcomes obstacles

Often, there are different opinions in the departments about what is the best component: While the purchasing department will prefer the cheapest product, the engineer will choose the technically most sophisticated product.



### Aims of PURCHINEERING

The company will profit considerably if the cooperation between the purchasing and engineering department is optimized:

- **Avoid maverick buying**  
Define preferred parts and suppliers.
- **Make or buy analysis**  
For which parts do we have know-how, which parts can be purchased externally.
- **Global sourcing**  
Choose the ideal supplier while considering the production site.
- **Product- & supplier transparency**  
Make the best decision for parts and suppliers by considering the technical and economical characteristics.
- **Kanban & logistics processes**  
Reduce the process costs for c-parts.
- **Change management**  
Information about the End of Life or changes of the supplier data for purchase and engineering.
- **Cost analysis / Design2Cost**  
Cost analysis on the basis of general price inquiries for standard and supplier parts or price analysis of standard-, company- and supplier parts which are already available in the ERP and PLM system.

# PURCHINEERING

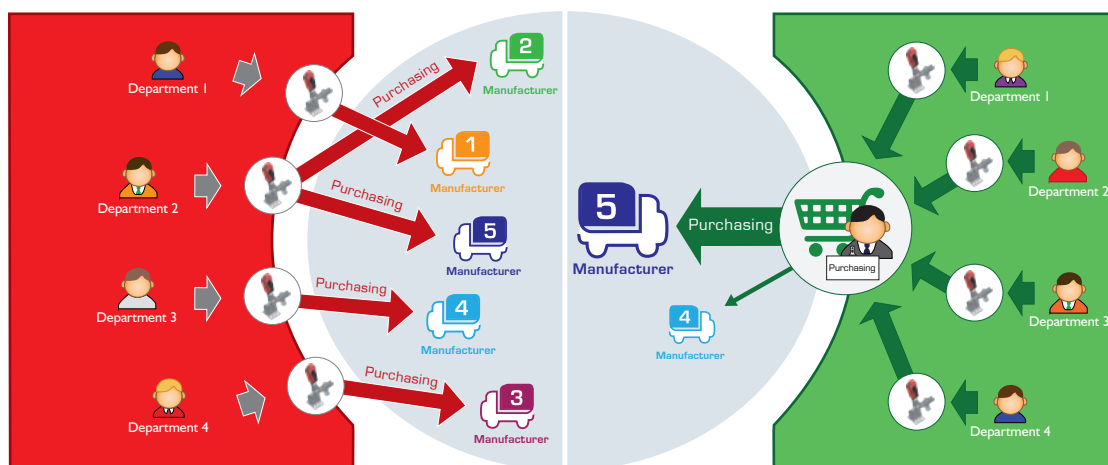
## MAVERICK BUYING

### Definition of maverick

The term maverick stems from the name of the lawyer, politician and cattle breeder Samuel A. Maverick (1803-1870) who did not brand his cattle. Thus, unbranded cattle was generally known as a Maverick cattle. In the English language, a maverick is a person who thinks and acts independently, a non-conformist or rebel.

### Maverick buying

Maverick buying or wild purchase is a term out of supply management. One talks about maverick buying when a department buys materials or services independently, without incorporating the purchasing department. In other words, maverick buying is the purchasing outside of standard procurement processes.



### Consequences of maverick buying

- Uncoordinated processes
- Missing price comparisons
- Multitude of different suppliers
- Higher prices due to missing or badly lead negotiations and smaller quantities
- Missing framework agreements

CADENAS' Strategic Parts Management PARTsolutions looks at the whole parts world as well as preferred parts and -suppliers, thus you enable your engineers to choose parts within a reasonable selection.

# PURCHINEERING

## MAKE OR BUY?

**With PARTsolutions you make the right decision!**

Many companies still create a large portion of single parts themselves, although supplier parts are available on the market. Increasing the use of supplier parts creates spare production capacities which allows companies to concentrate more on their core competencies.

Before deciding on making a part or buying a part, one should analyze first if there is a special know-how about production of certain parts within the company and which parts can be purchased from a supplier.

If you compare the internal production costs with those of manufacturers for standard parts you can easily save over 40% of your expenses for parts!

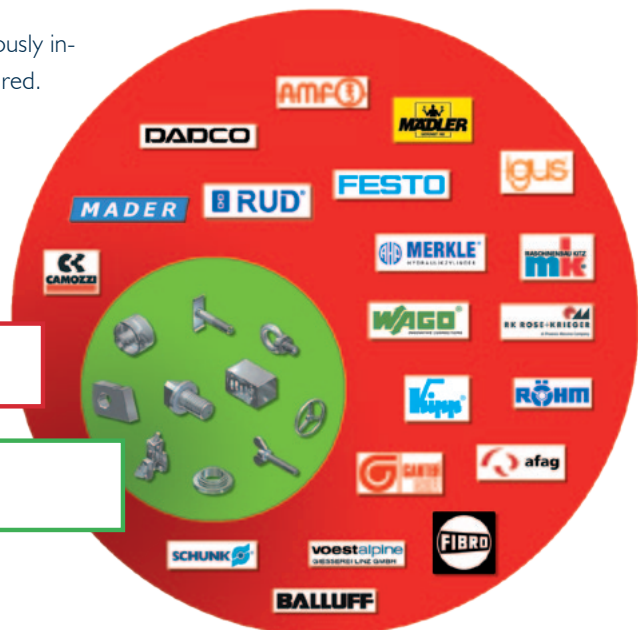
### Proprietary vs. supplier parts

PLM and ERP systems manage and know only internal, previously integrated parts. The question "make or buy" cannot be answered.

Only with Strategic Parts Management PARTsolutions they can think outside the box which means finding and implementing same or similar parts of numerous suppliers from the external parts world.

**View: Strategic Parts Management  
»external parts world«**

**View: PLM/ERP  
»internal parts world«**



"MISUMI provides the Strategic Parts Management with more than 1 mn. different, individually configurable mechanical components. Normally these components are up to 60% cheaper and often even faster available than creating them internally or externally. Since it relieves in-house production, there are more capacities to concentrate on complicated components."



STEFAN PULVER  
MISUMI EUROPA GMBH



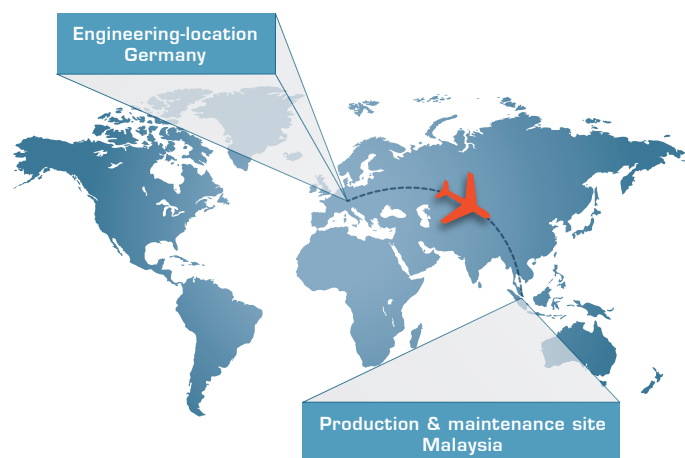
# PURCHINEERING

## GLOBAL SOURCING

Global Sourcing is a procurement process with the aim to use international supplier sources. However, the supplier should not be chosen because of low prices since the transport is often more expensive than the goods itself.

### Consider the production location when selecting your supplier

The product is developed in Germany, the components ordered from a cheap inland supplier and the parts are then sent halfway around the world to the actual production site.



### With PARTsolutions your parts do not fly halfway around the globe

To minimize transport expenses when choosing products, it is important to regard suppliers that are represented internationally and can supply your product sites on the spot.

The strategic parts management PARTsolutions supports you in selecting global suppliers and helps to build sustainable and perspective relationships. The suppliers are provided with the corresponding countries. This way it is obvious how many international sites this supplier has, which allow direct supply in foreign countries.

### Choice of location with CADENAS' PARTsolutions

In times of globalization it is an important business strategy of many companies to enter new markets. The Strategic Parts Management supports you, by providing important information about the validation when choosing the right location.



# THE SUPPLIER PORTAL

## INTEGRATION OF EXTERNAL SUPPLIERS

With CADENAS supplier portal you can reduce part multiplicity regardless of external suppliers to bare essentials.

Via the online platform, authorized users get access to all available standards and at the same time they see which standards should be used preferably for engineering.

CADENAS' supplier portal is directly integrated into the Strategic Parts Management PARTsolutions and has numerous parts information from other systems like ERP and PLM.



## All information for external companies and engineering-providers

By integration into the existing system environment, standards and self-designed parts can be provided on a centrally controlled surface:

■ **Information CAD system**

Geometry, weight, ...

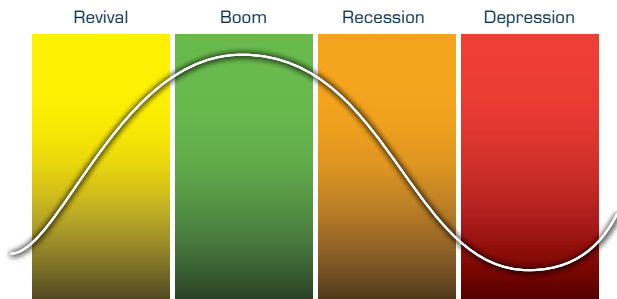
### ■ Information PLM system

Preferred ranges, document, ...

■ **Information ERP system**

Price, availability, ...

# FIT FOR THE FUTURE



## The economic cycle

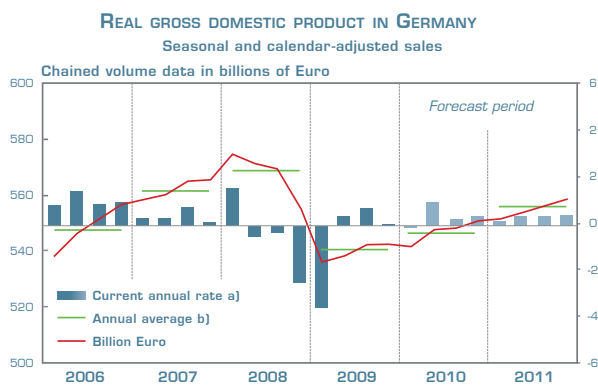
The economic cycle defines the entire period in which the economic development passes through the individual economic phases from one revival to the next. The entire macroeconomic development thus performs with certain regularity in undulations or cyclical fluctuations.

## Think of tomorrow already today!

According to the ifo institute, the recovery of the global economy is progressing. The financial and economic crises of 2008 and 2009 are gradually being overcome.

Even if there is an end in sight concerning the crisis, one should be prepared for the future:

With CADENAS' Strategic Parts Management PARTsolutions, you reduce the costs in the run-up, thus securing the competitive position of your company in difficult times.



# WHEN ARE YOU READY TO START?

With CADENAS' Strategic Parts Management PARTsolutions, you reduce costs in advance and secure the competitive capacity of your company in hard times as well.

**Out of 1000** German global players, **154 companies** already rely on PARTsolutions by CADENAS.

These companies have already implemented Strategic Parts Management:



*"PARTsolutions is an inherent part of the global MAN PLM strategy and offers our engineering departments innovative opportunities in order to be able to work globally, efficiently and successfully."*

ALEXANDER REUTER, IT DEPARTMENT HEAD,  
CAx APPLICATIONS, METHODS & INFRASTRUCTURE  
MAN TRUCK & BUS AG



**The user report is available under:**  
[www.cadenas.de/user-reports/man](http://www.cadenas.de/user-reports/man)



*"The supplier portal PARTcommunity significantly eases our communication with our external engineering offices while simultaneously minimizing the risk of error for incorrect CAD file names."*

EBERHARD ILG, TECHNICAL MANAGER  
AIM - ASSEMBLY IN MOTION GMBH



**The user report is available under:**  
[www.cadenas.de/user-reports/aim](http://www.cadenas.de/user-reports/aim)



*"Our design engineers are not allowed to download CAD data via the websites of the suppliers. New parts always have to be applied for via CADENAS and be released centrally."*

BERND POSTAREMCZAK  
COORDINATOR PARTS MANAGEMENT  
SMS SIEMAG AG



**The user report is available under:**  
[www.cadenas.de/user-reports/sms](http://www.cadenas.de/user-reports/sms)

# CADENAS – SETTING STANDARDS

CADENAS is a leading software developer in the areas of Strategic Parts Management and reduction (PARTsolutions) as well as Electronic Product Catalogs (eCATALOGsolutions).

CADENAS tailorable software solutions act as a link between component manufacturers, their products and the buyers.

With its 300 employees at 14 international locations, the name CADENAS (Spanish for chains) has stood for success, creativity, consulting and process optimization since 1992.

As a trend setter and initiator, CADENAS has already introduced many important innovations and trends.

These innovations include:

- The search for CAD parts using topologies
- The similarity search for CAD parts which runs automatically in the background
- The CAD parts search through sketching



More information about the latest innovations and the company can be found on our website at:  
[www.cadenas.de/en](http://www.cadenas.de/en)



# CADENAS UNITES

COMPONENT MANUFACTURERS & SUPPLIERS  
WITH THE INDUSTRY!

CADENAS SOLUTIONS  
for **industrial buyers** of components

## THE STRATEGIC PARTS MANAGEMENT

Sustainable cost reduction of standard, supplier and company parts for engineers and purchasers.



## THE GEOMETRIC SIMILARITY SEARCH

Find available CAD geometries in a smart way and classify them semi-automatically.



## THE ELECTRONIC PRODUCT CATALOG

The software solution to create and promote Electronic CAD Product Catalogs.



## THE SUPPLIER PORTAL

The platform improves the communication to external suppliers.



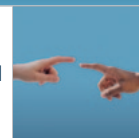
## THE VERTICAL MARKETPLACES

Numerous online marketplaces to multiply your Electronic CAD Product Catalog.



## THE PURCHINEERING CONCEPT

Improves the cooperation between purchasing and engineering.



### CADENAS GmbH Augsburg

Berliner Allee 28 b + c  
D - 86153 Augsburg  
Phone: +49 (0) 821 258 580 - 0  
Fax: +49 (0) 821 258 580 - 999  
E-Mail: [Info@cadenas.de](mailto:Info@cadenas.de)  
[www.cadenas.de/en](http://www.cadenas.de/en)

### THE CADENAS GROUP WORLDWIDE:

Germany Phone: +49 (0) 821 2 58 58 0 - 0  
Austria Phone: +43 (0) 664 2 45 27 13  
Italy Phone: +39 051 04 16 776  
France Phone: +33 (0) 4 81 30 00 04  
Spain Phone: +34 932 749 540

USA Phone: +1 (513) 453 04 53  
Croatia Phone: +385 (0) 35 40 26 60  
South Korea Phone: +82 505 936 93 60  
Japan Phone: +81 3 59 61 50 31  
China Phone: +86 (0) 21 63 55 13 18