PARADINE

From Data Silos to Data Value
The ECLASS-Driven Material Master Transformation

Building a Scalable, Corporate-Wide Single Source of Truth for Operational Excellence

Cologne, 24. September 2025

Independent global active experts in corporate-wide Material, Asset and Business Partner Master Data Management

PARADINE

Let your Master Data become a valuable Company Asset!

Vienna (Headquarter) — Offices RO, UA, CN (Partner)
230+ customers — 100+ employees
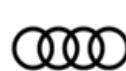
- **Consulting Services**

  Implementation of corporate-wide, multilingual Material, Asset and Business Partner Master Data Management, Master Data Governance, Digital Twin, Industry 4.0

- **Master Data Services**
  - Classification and Mapping Services
  - Master Data Cleansing and Data Enrichment
 - Deduplication and Consolidation

- **Software Solutions**
  - eptos™ Master Data Management Solution
  - ECLASS® Reference Application
  - eCatCreator™ and ECLASS®-API

ECLASS preferred partner platinum

ECLASS OFFICE AUSTRIA, SOUTH- AND EAST-EUROPE

25 YEARS — proudly serving …

AVL · ECLASS · BORBET thyssenkrupp · Infineon · BASF · Audi · NXP · SIEMENS · Roche · nexperia · Alibaba.com · Volkswagen · OMV · PetroChina · ZEISS · thyssenkrupp

Corporate Asset, Material and Business Partner Master Data Management

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Manage digitalization of corporate wide consistent and reliable Master Data in the areas of:

- Product Development
- Engineering
- Asset Management
- Material Management
- Material Groups
- Procurement, Business Partners
- Sustainability (RoHS, REACH, Carbon Footprint, etc.)
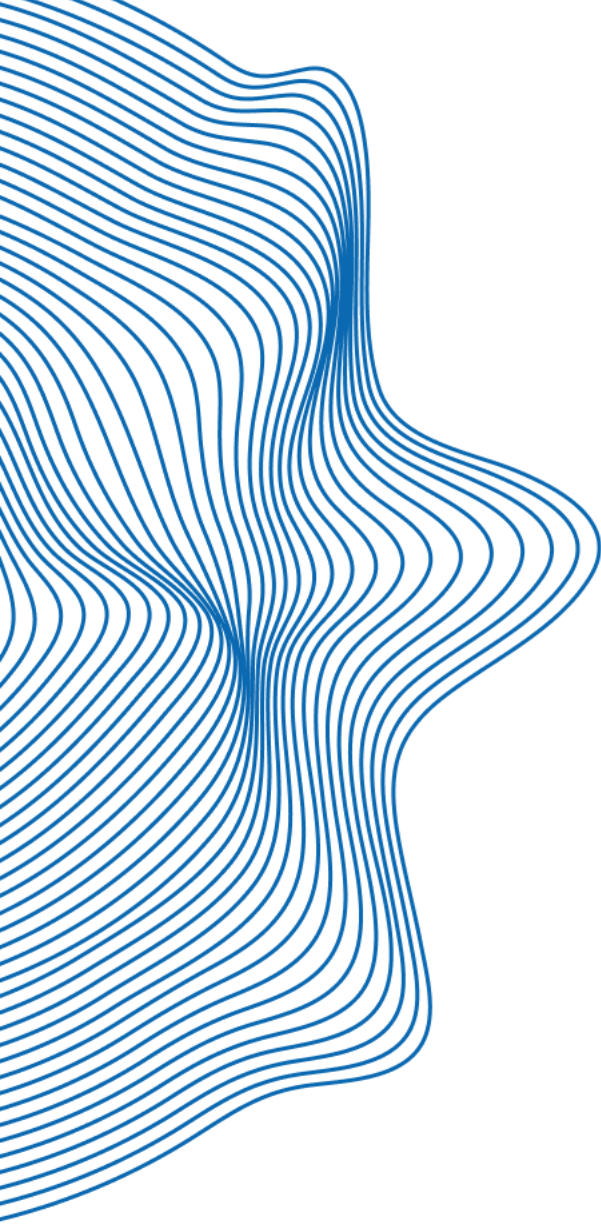- AAS, DPP, Digital Twin, Industry 4.0, …
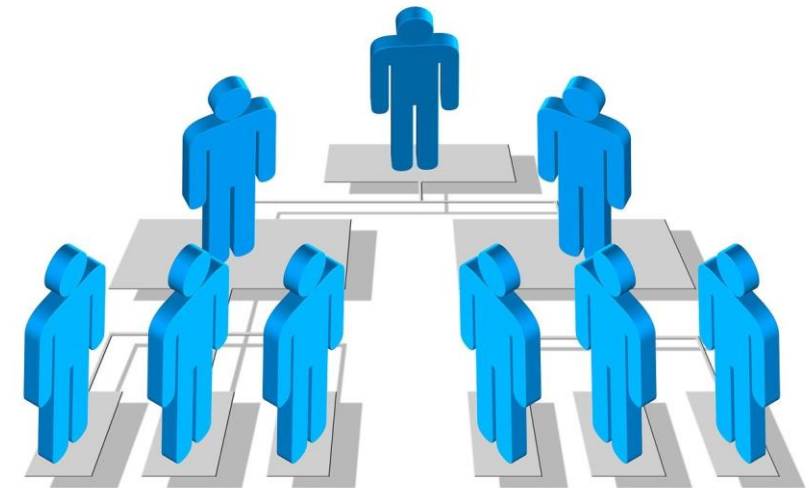
Today's Market Requirements

- Product and Material Master Data
- Digital Twins of all kind
- Material Declaration (REACH, RoHS, …)
- Sustainability Information (Carbon Footprint, …)
- Asset Administration Shell (AAS)
- Digital Product Passport (DPP)
- Digital Nameplate (IEC 63365)
- Digital Technical Documentation (VDI 2700)
- Identification Link – (IEC 61406 CD)

DATA EQUIPMENT

Identification
(Equipment no., Serial no., Unique Identifier (UID)

Technical configuration
(Specifications, Drawings, Equipment BCM, Certificates)

Documentation of activities
(Installation, Comissioning, Operation, Security, Inspection, Overhaul)

Contract documents

Quelle Bild: KSB

Quelle Bild: Krohe

PARADiNE & ☰ CLASS

A long lasting successful partnership

☰ CLASS
OFFICE AUSTRIA, SOUTH- AND EAST-EUROPE

☰ CLASS
preferred partner platinum

Paradine - ECLASS Partnership

ECLASS Office

Paradine is official ECLASS office for Austria, Southern and Eastern Europe

Implementation of ECLASS

We support you in the implementation of ECLASS and offer software solutions for the provision of ECLASS-based data throughout the company
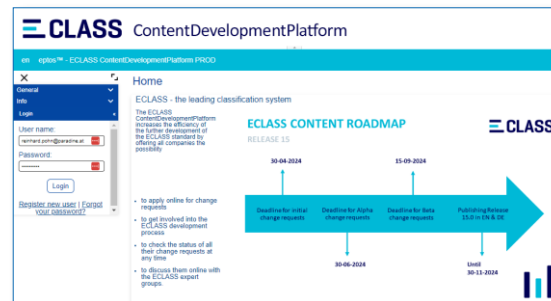
Consulting & Training

We offer a wide range of consulting and training services for ECLASS (webinars, seminars, workshops, ...).

ECLASS Certified PLATINUM

Paradine is a long-time consultant and developer of the ECLASS Content Development Platform as well as ECLASS partner in the highest level Platinum

ECLASS OFFICE AUSTRIA, SOUTH- AND EAST-EUROPE

www.eclass-cdp.com

a Paradine eptos™ Implementation
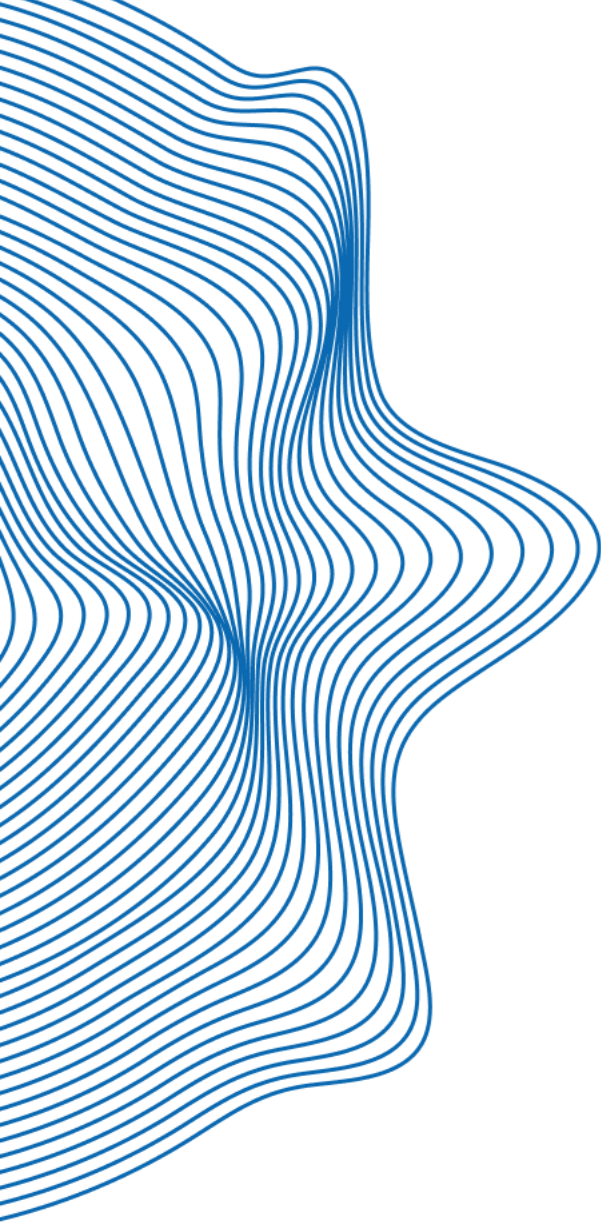
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ECLASS preferred partner platinum

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From Data Silos to Data Value

The ECLASS-Driven Material Master Transformation

Building a Scalable, Corporate-Wide Single Source of Truth for Operational Excellence

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- What are companies today suffering with their existing data silos?

- Build up a Corporate Singles Source of Truth for Material, Asset and Business Partner master data

- Using ECLASS to increase and keep material master data quality high over time

- How material master data is provided to all consuming systems

- Benefits to achieve

What are companies today suffering with their existing data silos?

- **Strategic Blind Spots**
  - Data silos severely limit an organization's strategic capabilities and decision-making.
- **Inaccurate Spend Analysis**
  - Without a unified view of procurement data, companies cannot accurately analyze their total spend, identify cost-saving opportunities, or negotiate better terms with suppliers. Source: Deloitte, 2023
- **Poor Inventory Visibility**
  - Disconnected inventory systems lead to an incomplete picture of stock levels, resulting in either overstocking (tying up capital) or stock-outs (disrupting production and customer satisfaction. Source: Oracle, 2022
- **Compromised Compliance**
  - Fragmented data makes it challenging to ensure adherence to regulatory requirements and internal policies. Inconsistent data can lead to difficulties in auditing, increased risk of non-compliance, and potential penalties. Source: PwC, 2023
- **Hindered Analytics**
  - Data silos prevent the aggregation of comprehensive datasets required for advanced analytics, artificial intelligence, and machine learning. This limits the ability to gain deep insights, predict trends, and drive innovation. Source: Microsoft, 2024

These limitations create "blind spots" in your strategic decision-making capabilities, preventing organizations from realizing their full potential.

Typical Software Applications (Data Silos)
for Products/Material and Business Partners

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Engineering Tools
(CAD, CAE, …)

PLM

Sales Application

SRM

PIM

Catalog Purchasing

ERP

Web-Shop

Challenges Companies facing today

- Many software applications in use

- Data quality is poor and not consistent

- Duplicate Materials and Business Partners

- No reliable electronic data exchange within the organization as well as with Suppliers and Customers

- No transparency and difficult bundling of demands

- Increasing data requirement from legislation and markets (e.g. Sustainability, DPP, etc.)

What do we want to achieve?

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- Corporate-wide consistent Categorization/Classification

- Reliable and aligned Product and Material description

- Structured Mappings to Material Groups as well as other Classification Standards if required

- Clear Data Ownership and Data Governance

- Elimination of redundant data capturing and data maintenance

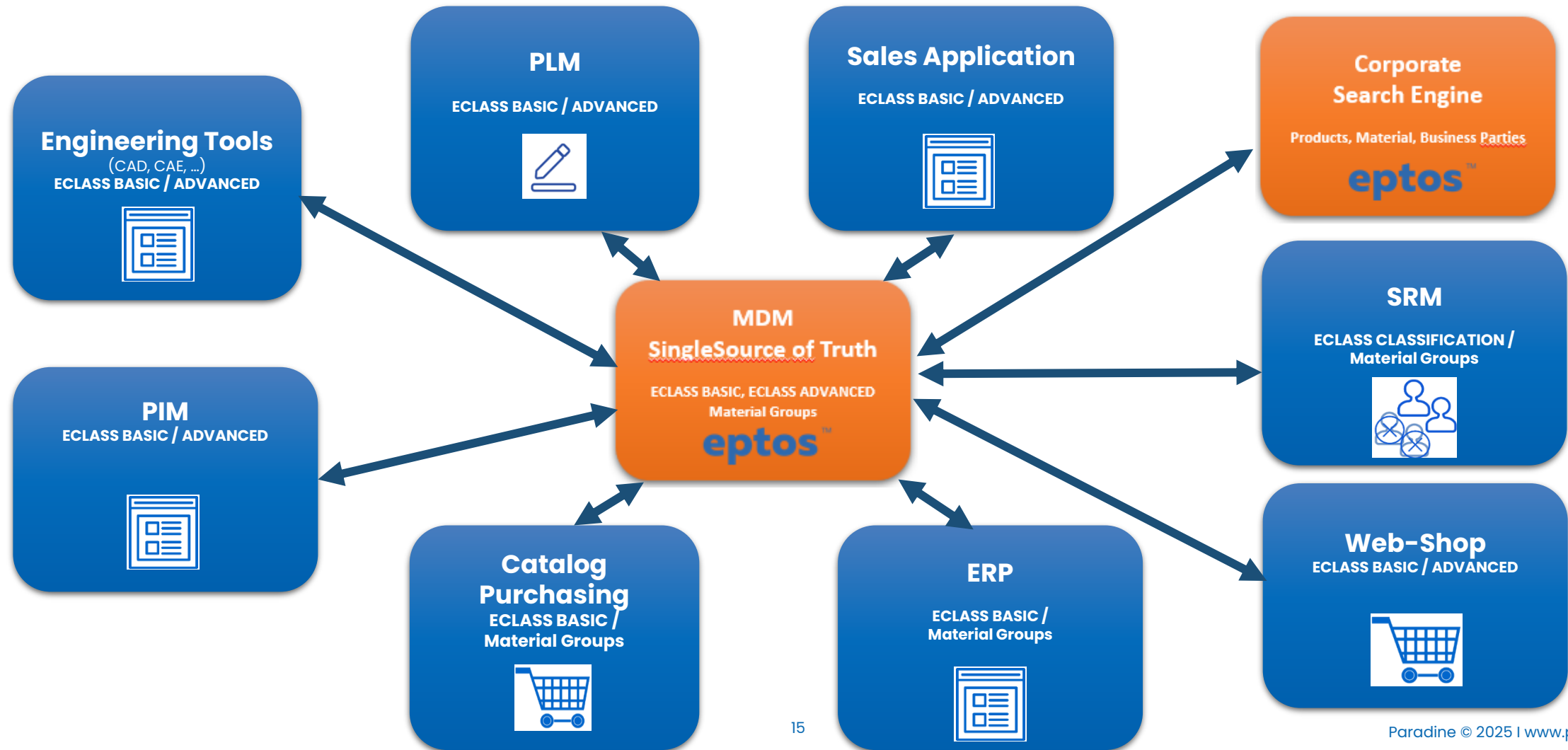- Identification, elimination and avoidance of duplicated material and business partner

Build up a Corporate Singles Source of Truth for Material and Business Partner master data

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- **Clear Data Ownership** Assign responsibility for data creation, maintenance, and quality to specific individuals or departments.
  - Establishes accountability
  - Ensures data accuracy
  - Promotes consistency
- **Defined Governance Policies** Establish comprehensive policies for data definition, quality, security, and lifecycle management.
  - Standardizes definitions
  - Enforces quality controls
  - Manages data lifecycle
- **Central MDM Platform** Implement a robust platform as the central repository and management system for all master data.
  - Facilitates consolidation
  - Enables data cleansing
  - Supports data distribution

eptos™ Master Data Management System

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- Single Source of Truth for Master Data across the enterprise

- Product, Material, Asset and Business Partner Master Data Management

- Cloud Based Managed Service

- Dictionary Management

- Classification / Mapping Management

- Full support of ECLASS BASIC/ADVANCED

- Template Management

- Workflows, Release Management

- Document Management

- Data Synchronization across the Enterprise
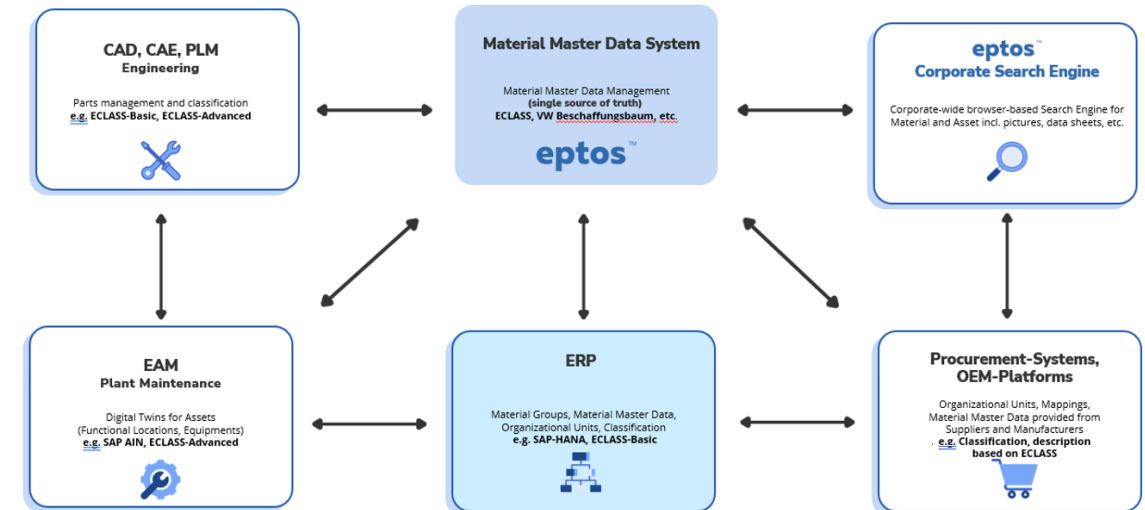
Implementing a Single Source of Truth

PARADINE

Engineering Tools
(CAD, CAE, …)
ECLASS BASIC / ADVANCED

PLM
ECLASS BASIC / ADVANCED

Sales Application
ECLASS BASIC / ADVANCED

Corporate Search Engine
Products, Material, Business Parties
eptos™

PIM
ECLASS BASIC / ADVANCED

**MDM
SingleSource of Truth**
ECLASS BASIC, ECLASS ADVANCED
Material Groups
eptos™

SRM
ECLASS CLASSIFICATION /
Material Groups

Catalog Purchasing
ECLASS BASIC /
Material Groups

ERP
ECLASS BASIC /
Material Groups

Web-Shop
ECLASS BASIC / ADVANCED

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Integration Mechanisms

Technologies for distributing master data based on system needs.

- **APIs**
  - **RESTful:** Flexible, stateless for real-time access
  - **SOAP:** Structured data exchanges
- **Data Replication**
  - **Batch:** Scheduled intervals
  - **Incremental:** Only changes
- **Event-Driven Messaging**
  - **Kafka, RabbitMQ, Tibco:** Asynchronous communication
  - Real-time updates with decoupling
- **File-Based Transfers**
  - CSV, XML via SFTP

The Role of ECLASS

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ECLASS provides a standardized framework for material master data management.

- **Hierarchical Classification**
  - ECLASS organizes materials into a multi-level hierarchy, enabling precise categorization.
- **Standardized Properties**
  - Each ECLASS class has defined properties and values, ensuring consistent descriptions.
- **Unique Identifiers**
  - Every ECLASS class has a unique ID, facilitating machine-to-machine communication.
- **ECLASS-Driven Standardization**
  - Creates a common language for material data
  - Enables automated validation of data
  - Facilitates data exchange between systems
  - Improves data consistency and quality

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Business Partner Management

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- Corporate Wide Business Partner Management

- Suppliers, Manufacturers, Machine Manufactures, Contractors, etc.

- Synced BP with your Corporate applications (ERP, PLM, Catalog Procurement, etc.)

- Transparency through Rating and Grading

- De-duplication and avoidance of new Duplicates of BP

- Supports strategic Planning by BP linked to all Materials

#	Bild	Grading	Rating	Name	Name2
1	ABB	●	★★★☆☆	ABB	ABB Automation Products GmbH
2	EMERSON Aventics	●	★☆☆☆☆	Aventics	
3	BALLUFF	●	★★★☆☆	Balluff	Balluff GmbH
4	rexroth A Bosch Company	●	★☆☆☆☆	Bosch Rexroth	Bosch Rexroth AG
5	EISENMANN	●	★☆☆☆☆	Eisenmann	Eisenmann GmbH
6	Endress+Hauser	●	★☆		
7	FESTO	●	★		

Producer - Siemens - Class Table (10)

Class Code ↑	Class Name	Items
27-02-26-02	Servo synchronous motor	19
27-02-26-90	Servo motor (unspecified)	7
27-04-03-01	Switching power supply	17
27-04-07-01	Continuous current supply	43
27-33-02-01	Graphic panel (HMI)	56
27-37-10-01	Contactor relay	87
27-37-10-03	Power contactor, AC switching	283
27-37-10-13	Overvoltage limiter	39
27-37-13-02	Auxiliary switch block	168
27-37-18-19	Device for monitoring of safety-related circuits	65

eptos™ Search Engine

- Corporate wide Full Text Search Engine for Product, Material and Business Partner

- Browser based, no local installation

- Easy cross-site „Finding" of existing materials

- Auto-Completer

- Pre-define Facets for quick access

- Use Pictures and Documents for easy selection

- Define preferred parts for strategic parts

- Customer specific attributes possible
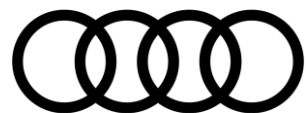
Benefits and Business Value

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The ECLASS-driven material master transformation delivers tangible business value across operational and strategic dimensions.

- **Operational Excellence**
  - Streamlined processes
  - Eliminated data redundancy and increased data quality
- **Cost Reduction**
  - Transparency and lower error rates
  - Optimized inventory
- **Strategic Enablement**
  - Accurate spend analysis
  - Enhanced decision-making

This transformation directly translates into tangible business value, enhancing both day-to-day operations and long-term strategic capabilities.

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our products and services ?

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