Article Master Data Under Control

Centida

Data. Intelligence. Decisions.

Oberkirch, 03.07.2026

The problem: article master data erodes silently

What we consistently see in mid-sized manufacturers — grown structures, not mistakes

What typically goes wrong

- Duplicates, spelling variants and empty attributes accumulated over decades — no validation at entry, no owner
- Manual Excel bridges keep systems talking — dozens of them, each maintained by hand
- Same part, different numbers in every plant — no group-wide master after international growth
- Month-end is a reconciliation marathon; meetings start with “whose number is right?”
- The mapping logic lives in the heads of a few long-tenured employees

What it costs — and why nobody saw it

- $12.9M average annual cost of poor data quality (Gartner); 15–25% of revenue by MIT SMR estimates
- 5–7% of MRO spend lost to duplicate purchasing; inflated inventory, fragmented volumes, slow quoting
- The cost is distributed across departments — it never appears as a P&L line, so it was never prioritized
- Now it has deadlines: SAP ECC end of maintenance 2027, B2B e-invoicing 2027/28, CBAM and product passports
- And it blocks AI: 56% of manufacturers name data as their #1 barrier (KPMG)

The challenge: process, people and technology at once

Fixing one dimension alone reliably fails — the workaround simply moves

Process
Errors enter faster than anyone removes them.

- No entry standards or validation at the source
- No defined ownership — each department maintains “its” fields
- Workarounds became the process: bridges, re-keying, shadow lists

People
Data work has no lobby in a production-focused culture.

- Knowledge concentrated in a few veterans — retirement wave ahead
- No capacity or mandate for data stewardship roles
- Adoption fails without purchasing and the shop floor on board

Technology
The landscape grew; the master data did not follow.

- ERP(s), PLM, CRM, MES, webshop, Excel — each with its own copy
- Enterprise MDM suites oversized: 12–24 months, 6–7-figure licences
- Until LLMs, no affordable way to clean decades of records

Our solution: assess, build, clean, anchor

Lightweight central repository + LLM cleansing + anchored ownership — technology and management consulting in one engagement

1. Assess

Map systems, bridges and data quality along end-to-end processes.

Landscape and process mapping
Data profiling and duplicate analysis
Pain quantified in euros and hours

Deliverable: assessment, roadmap and business case

2. Build

Stand up the lightweight central repository on your cloud.

Tailored data model and validation rules
Web app with roles, import and APIs — AI-assisted build
Priority systems and reports connected

Deliverable: central master data hub, live

3. Clean

LLM-based cleansing of the existing records at scale.

Deduplication and normalisation
Enrichment of missing attributes
Human review of edge cases

Deliverable: priority domain clean and complete

4. Anchor

Make the organization keep it clean.

Ownership model and entry standards
Training and change management
Recurring AI quality checks on new entries

Deliverable: governance handed over to your team

Rough timeline: first results within a quarter

A fraction of a classic MDM programme — typically 3–5 months for the first full stage

Weeks 1–3 — Assess. Landscape and process mapping, data profiling and duplicate analysis, pain quantified in euros and hours. Output: quantified roadmap and business case.
Months 2–3 — Build & clean. Central repository live on your cloud (AI-assisted build); LLM deduplication, normalisation and enrichment with human review of edge cases. Output: hub live, priority domain clean.
Months 3–5 — Anchor & scale. Reports and tools remapped to the hub; ownership, entry standards and training anchored in the organization; further domains and sites staged by value. Output: governance handed over to your team.
A natural entry point is the upcoming ERP migration: cleaning before migrating is dramatically cheaper than cleaning during — and the repository de-risks the migration itself.

The pace depends on

- Number of systems and sites in scope
- API / export access to legacy systems
- Availability of your data owners
- Decision speed; IT security and works-council lead times

Reference
For an international automotive supplier we consolidated fragmented Excel mappings and reporting dimensions into a central repository (web app + cloud SQL, AI-built in days) and remapped Power BI and internal tools to it.

Centida

Data. Intelligence. Decisions.

Centida GmbH | Hauptstrasse 52, 77704 Oberkirch, Germany | +49 7802 704 2332 | info@centida.com | Registration number: HRB 712503 | VAT ID: DE298062157 | https://centida.com