

WHITEPAPER

Structured Product Data Management with ADIB Portals

An efficient, controlled, and auditable data process for product teams.



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MANAGEMENT SUMMARY

The Challenge...

Digital transformation is increasingly forcing companies to manage their product data more efficiently and consistently. At the same time, this data has often evolved over time, is influenced by numerous stakeholders, and shaped by heterogeneous processes.

The Solution...

The ADIB Portals establish a controlled Excel roundtrip that exports product data in a structured way, enables targeted editing, and re-imports it with validation – including change preview, selective adoption, and clear auditability.

The Result...

Higher data quality, fewer import errors, shorter processing times, and a scalable governance structure. As a result, ADIB Portals not only support operational efficiency but also provide the foundation for sustainable growth and a robust data strategy.

*„70% of companies struggle with poor data quality“
(Source: Bitkom Study 2023)*

AT A GLANCE



- 37 %

fewer import errors
(example value, year-on-year)



+ 42 %

faster processing time
(example value, export - go-live)



98.4 %

validated in preview
(example value)



0

critical rollbacks
(example value)

DOWNLOAD > EDIT > IMPORT

INITIAL SITUATION & PAIN POINTS

In many companies, business departments and IT teams reach their limits when it comes to managing product data.

The result: inefficient processes, data inconsistencies, and significant correction efforts.

Typical Challenges:



Inconsistent processing – Free editing in Excel often leads to schema deviations (new columns, missing mandatory fields).



Error-prone imports – It is often unclear whether a row is new, modified, or should be deleted.



Lack of traceability – Changes are difficult to review, especially when dealing with large datasets or complex hierarchies.



Time loss – Iterative testing and corrections block both business teams and IT.

“
Only 6% of German companies fully
exploit the potential of their data.
”
– Bitkom Research, 2024

THE SOLUTION: CONTROLLED EXCEL ROUNDTRIP WITH ADIB PORTALS

The ADIB Portals implement a controlled Excel roundtrip that makes product data management structured, traceable, and secure.

The process consists of four clearly defined steps:



Controlled Download – Selection of one or multiple products; export in Excel format with the “Export for Import” option enabled.



Structured Editing – Editing within predefined tabs; no new columns can be added, but new rows are allowed.



Clear Change Logic – Mandatory Action column (N/U/D); deletion rows are marked only; ParentID is used for tree structures.



Guided Import – Overview of planned actions, detailed view per row, and checkboxes for final selection and adoption.



PRACTICAL GUIDE (QUICK OVERVIEW)

The following practical guide shows how the Excel roundtrip works in three simple steps in day-to-day use.

Download

1

- Select products
- Add them to the download table
- Enable *Excel* format + “Export for Import” option
- Download the file

Editing in Excel

2

- Edit the *Download Table* tab (and, if needed, Subtables or References)
- Leave the *Selections* and *meta* tabs unchanged
- Do not add new columns; adding new rows is allowed
- Fill in the mandatory **Action** column: N / U / D (uppercase)
- Do not edit rows marked for deletion
- Set the **ParentID** for hierarchical structures

Import

3

- Open the *Excel* Import menu
- Choose the file and *review* the overview of planned actions
- *Perform* a detailed comparison per row
- **Select** the rows to be adopted
- **Save** the changes
- The *Delete* button discards the entire import draft.



SPECIFICS FOR COMPLEX DATA MODELS

For complex data models such as Subtables and References, additional rules apply to ensure consistent editing and clear data assignment.

SUBTABLES

Control fields such as main product and main field assign entries to the correct product or attribute.

The Action column also controls N / U / D operations within subtables.

IDs for new entries are generated automatically.

REFERENCES

The starting point is the main product (ID in the download table).

Additional columns identify the referenced product (e.g., SAP number).

Updates are not possible – only N (new) or D (delete) actions are allowed.

“
Only 27% of companies have a consistent
data model across all systems..”

– Gartner, 2023

“
Complex data structures are one of the
main causes of data inconsistencies..”

– Bitkom, 2024

GOVERNANCE, QUALITY & SECURITY

Reliable product data is the foundation for efficient processes, informed decision-making, and regulatory compliance. Without clear rules, inconsistencies, import errors, and additional workload for business and IT teams quickly arise.

The controlled Excel roundtrip offered by ADIB Portals creates significant added value: it combines schema discipline, traceability, error prevention, controlled data transfer, and role- and rights-based access into a structured, auditable, and sustainable process.

AT A GLANCE

Reliable data quality – stable formats, fewer import errors

Sustainable transparency – verifiable history and auditable processes

Regulatory security – roles & permissions prevent unauthorized changes



Schema Discipline

The “Export for Import” format enforces column and type stability while allowing scalable addition of new records row by row.



Traceability

The mandatory *Action* column for each record and the import preview provide a verifiable change history (who, what, when).



Error Prevention

The ParentID ensures correct tree structures, while a clear deletion logic (mark only, no editing) minimizes risk.



Controlled Handover

The import draft can be discarded entirely; the final adoption is performed deliberately, selectively, and with full documentation.



Roles & Permissions

Role-specific features (e.g., read/write permissions) prevent unauthorized changes and enhance data quality.

AUDIT & COMPLIANCE

- ✓ Fully traceable change log (Action N/U/D + preview)
- ✓ Selective final adoption with full audit trail
- ✓ Clear separation between draft and go-live minimizes import errors
- ✓ Role- and rights-based control prevents unauthorized changes

ECONOMIC IMPACT (ROI) & KPIS

Data quality is not just an IT issue – it has a direct impact on costs, speed, and process reliability. With the controlled Excel roundtrip of the ADIB Portals, organizations can achieve tangible cost savings and significant efficiency gains.



Fewer import errors

Reduced correction cycles and lower support workload



Faster processing times

Business teams deliver well-structured Excel files, and IT performs controlled imports



Improved data quality

Increased accuracy in commerce / ERP / PLM processes

EXAMPLE KPIS (FORWARD-LOOKING)

Typical metrics used in comparable projects, which could also be tracked with ADIB Portals in the future:

- Import success rate (% error-free)
- Time from export to go-live (days)
- Share of changes reviewed via preview (%)
- Number of canceled or discarded import drafts (quality filter)

”

Organizations lose an average of \$12.9 million per year due to poor data quality.

“

– Gartner Research, 2022

PRACTICAL RECOMMENDATIONS

To ensure smooth operation with the Excel roundtrip, certain best practices have proven particularly effective. The following checklist serves as a practical guide and helps avoid common mistakes.

RECOMMENDED STEPS

☐ *Export and process small batches*



- Faster validation
- Lower risk when handling large files

☐ *Maintain clear and unique identifiers*



- Consistently use the SAP number in references
- Follow consistent naming conventions

☐ *Mark deletions only*



- Do not further edit affected row
- Prevent data inconsistencies

☐ *Check hierarchies early (ParentID)*



- Verify structural completeness
- Ensure consistency before major changes

*„Well-structured data processes reduce validation effort by up to 40%“
(Source: Gartner 2022)*

QUICK EXAMPLE

The following example shows how changes are recorded within the Excel roundtrip.
Each row contains a unique ID and the corresponding action: N = New, U = Update, D = Delete.

ID	Aktion	Label	Beschreibung
1000	D	Goldenen Ring	Datensatz wird gelöscht
10001	U	Halskette 40cm	Label wurde geändert
wird vergeben	N	Ganz neues Armband	Neuer Datensatz

SUBTABLES & REFERENCES

Subtables - N / U / D per row; a new ItemTableID is automatically assigned for each new entry

References - only N / D; identification is done, for example, via a SAP number

	A	B	C	D	E	F	
1	Hauptprodukt	Hauptfeld	Aktion	ID	SAP-Nr		
2	7715	Zubehör:REFERENCE	D	890	1001893		
3	7715	Zubehör:REFERENCE	N		1001894		
4	7715	Zubehör:REFERENCE		882	30032		
5	7715	Zubehör:REFERENCE		870	1001902		
6	7715	Zubehör:REFERENCE		862	30891		
7	7715	Zubehör:REFERENCE		1006	1001911		
8	7715	Zubehör:REFERENCE		894	1010462		
9	7715	Zubehör:REFERENCE		886	1010460		
10	7715	Zubehör:REFERENCE		874	1001900		
11	7715	Zubehör:REFERENCE		885	30080		

< >
Download-Tabelle
Subtables
References
Selections
meta

MINI CASE STUDY (BENCHMARK COMPOSITE)

The following example demonstrates the significant impact a controlled Excel roundtrip can have on data quality and process efficiency.

The values are based on published benchmarks and serve as a conservative model.

Initial Situation

A mid-sized company manages around 8,200 SKUs.

Without a structured roundtrip, typical Excel errors (formula, structural, and input errors) occur disproportionately often.

Literature has consistently shown a high prevalence of spreadsheet errors over the years.



Interpretation



- Poor data quality leads to substantial costs.
- Reducing error rates and shortening processing times have a direct impact on cost-benefit ratios.
- Preview and validation steps directly address the error categories described in spreadsheet literature..

Model (conservative, benchmark-based)

Metric	Baseline (Before)	With Excel-Roundtrip	Improvement
Import error rate	8,0 %	5,0 %	-37 %
Processing time	3,5 Tage	2,0 Tage	-42 %

Disclaimer

Example values are based on published benchmarks and do not constitute a product claim. Results may vary depending on data quality, volume, and process maturity.

SOURCES & METHODOLOGY

SOURCES



Harvard Business Review (Thomas C. Redman): *Bad Data Costs the U.S. \$3 Trillion a Year* (2016)



European Spreadsheet Risks Interest Group (EUSPRIG) / Raymond R. Panko: Research on spreadsheet error prevalence



Gartner Research: Estimates and guidelines for data quality measurement and the cost impact of poor data

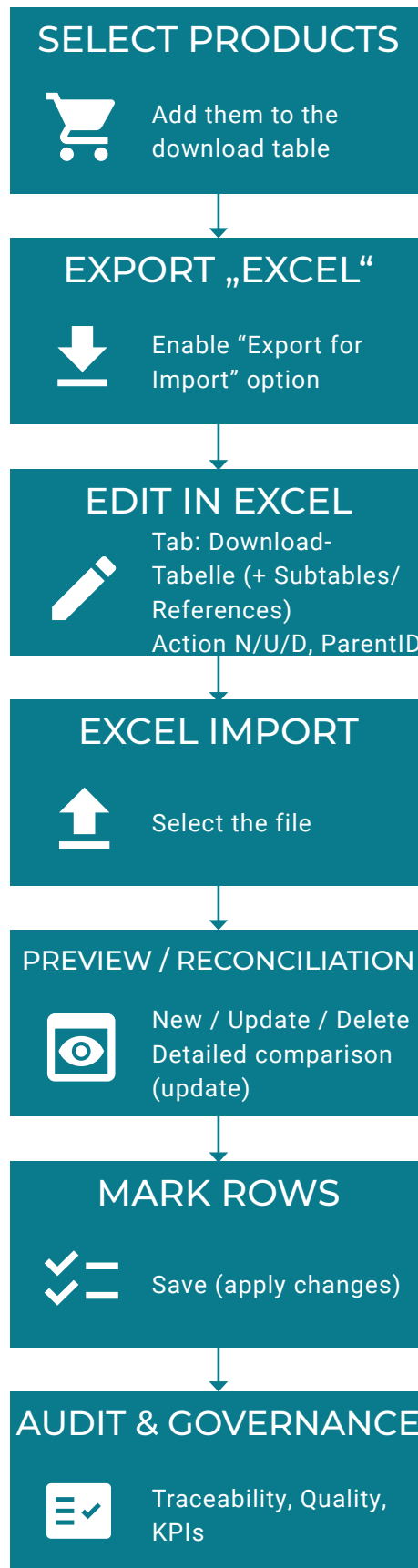


Additional overview articles and industry reports on data quality risks in Excel-driven processes

METHODOLOGY

- **Before/after modeling** using conservative assumptions based on the sources listed above.
- **Key metrics:**
 - Import error rate = Import errors / Total imports
 - Processing time (days) = Go-live – Export
 - Preview rate = Reviewed changes / Total changes
- **Example scale:** 3–4 releases before introduction vs. 3–4 releases after introduction (with similar scope and complexity)
- **Goal:** to substantiate potential improvements, not to present direct customer results.

PROCESS FLOW IN THE EXCEL ROUNDTrip (OVERVIEW)



CONCLUSION & CONTACT

The controlled Excel roundtrip with ADIB Portals provides a clear structure for data quality, process efficiency, and robust governance.

For further information or to schedule a personal demo, please get in touch with us.



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