



SAP VAT Health Check

Risk Assessment & Control Framework

KGT – SAP Tax Technology Advisory

Consulting White Paper

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Table of Contents

Executive Summary	3
Introduction	3
The problem – VAT rules evolved; SAP didn't	3
Why standard SAP (and many bolt-ons) fail	4
Why VAT Errors Occur in SAP Landscapes	4
Key VAT Risk Areas Identified in SAP Systems	5
Detailed Findings	5
Mathematical VAT Checks	5
Duplicate Supplier Invoices	5
Logical VAT Determination Errors	5
Master Data Governance	6
Tax Configuration Risks	6
Recommended VAT Control Framework	6
VAT Determination Across SAP Modules	7
Future Developments: E-Invoicing and Digital Reporting	7
KGT VAT Health Check Methodology	7
How KGT stands out vs. other vendors	8
Conclusion	9
Call to Action	9

Executive Summary

Indirect tax determination in ERP systems is one of the most critical control areas within finance and tax operations. Errors in VAT configuration, master data, or transactional logic can lead to incorrect VAT reporting, exposing the company to financial exposure and reputational risks during tax authority audits.

This white paper summarizes findings from a structured SAP VAT Health Check methodology developed by KGT. The review focuses on configuration integrity, tax determination logic, master data governance, and transactional accuracy across SAP modules, including Sales & Distribution (SD), Materials Management (MM), and Financial Accounting (FI).

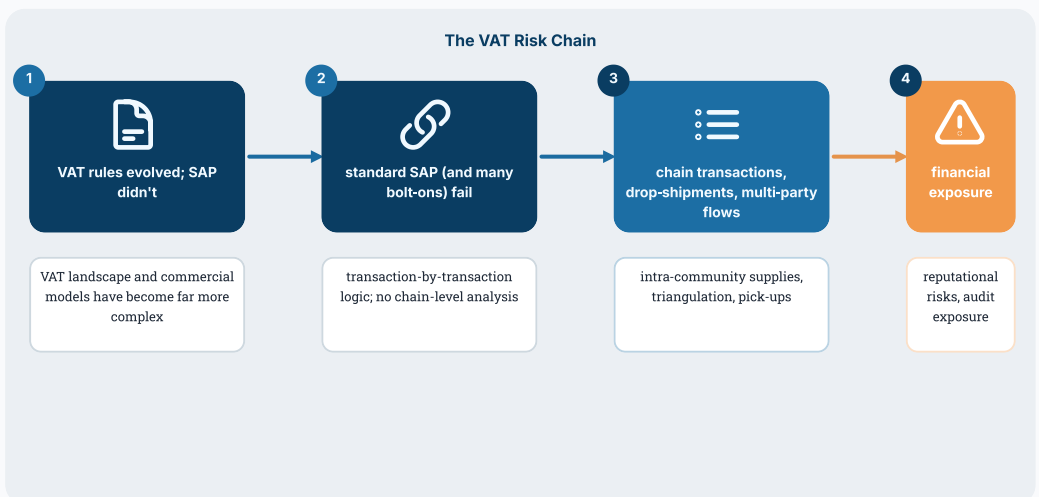
Findings from multiple SAP VAT diagnostics across multinational companies consistently show that VAT issues are rarely caused by a single configuration error. Instead, they typically emerge from a combination of process design decisions, acquisitions, master data inconsistencies, and incomplete integration between tax and business functions.

Introduction

VAT compliance is an intricate task that requires diligence and precision. With the dynamic landscape of international tax regulations, organizations must maintain robust controls to safeguard against potential risks in their VAT processes. This white paper explores common issues in SAP environments and provides actionable insights to help organizations enhance their VAT governance.

The problem—VAT rules evolved; SAP didn't

The VAT landscape and commercial models have become far more complex. Cross-border trade within the EU now includes intra-community supplies and services, subject to new formalities. Global supply chains and modern commercial practices—intercompany sales, chain transactions, drop-shipments, pick-ups, and other multi-party flows—have multiplied. These dynamics expose serious limitations in the standard SAP VAT determination logic.



Why standard SAP (and many bolt-ons) fail

The core weakness is conceptual: standard SAP and many bolt-on tax engines evaluate VAT on a transaction-by-transaction, company-by-company basis. They determine tax based on local attributes of the current document (ship-from, ship-to, material classification, customer tax class) but do not link that document to earlier or subsequent transactions in the same commercial chain. When more than two parties are involved, the VAT outcome of a transaction often depends on the VAT treatment of prior legs. Examples:

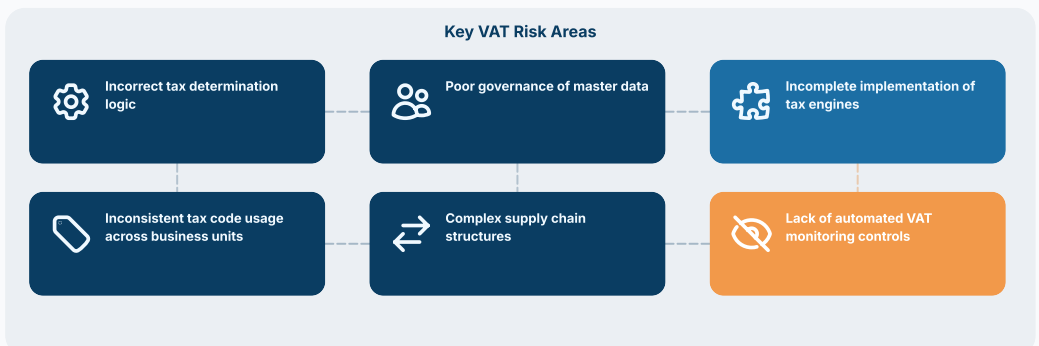
- ABC(D) chain transactions: three or more parties in different EU countries where goods move from A → C but invoices flow through B. Determining which leg is the intra-EC supply (zero-rated) and which is a local taxable supply requires chain-level analysis.
- Triangulation: under strict, country-specific rules, a simplified triangulation treatment can allow both legs to be zero-rated—but only if multiple precise conditions across the chain are met.
- Drop-shipments and pickup transactions: invoice flow and physical flow can be mismatched, so a simple ship-from/ship-to check is insufficient to determine the correct VAT treatment.
- Export/import within and outside the EU: whether the export occurs in the first or second leg changes who can apply zero-rating and who must charge local VAT.

Consequences are real and severe: a supplier that incorrectly applies zero rating can be assessed by tax authorities for unpaid VAT (e.g., 25% VAT becomes a 25/125 assessment of the value), plus interest and penalties. The cost is not just cash out—it's audit exposure, reputational risk, and intensive remediation work for tax and IT teams.

Why VAT Errors Occur in SAP Landscapes

Despite sophisticated ERP environments, VAT errors frequently occur due to the complexity of supply chains, organizational changes, and the interplay among logistics, finance, and tax logic. Typical root causes include:

- Incorrect tax determination logic
- Poor governance of customer and supplier master data
- Incomplete implementation of tax engines
- Inconsistent tax code usage across business units
- Complex supply chain structures driven by acquisitions
- Lack of automated VAT monitoring controls



Key VAT Risk Areas Identified in SAP Systems

Risk Area	Typical Observation	Potential Impact
Mathematical Errors	VAT posted differs from recalculated VAT	Incorrect VAT returns and financial adjustments
Duplicate Invoices	Duplicate AP invoices recorded	Overclaimed input VAT
Incorrect Tax Codes	Transactions use wrong tax codes	Incorrect VAT Reporting, overclaimed/underpaid VAT
Master Data Issues	Missing VAT IDs or incorrect country setup	Compliance Exposure, incorrect invoices resulting in unpaid customer invoices
Configuration Gaps	Incorrect tax procedure or condition records	Incorrect Tax Determination, incorrect invoices resulting in unpaid customer invoices
Cross-Border Flows	Incorrect handling of exports or triangulation	Zero-rating errors, input VAT deduction denied / additional VAT to be paid

Detailed Findings

Mathematical VAT Checks

Analytical recalculation of VAT amounts revealed inconsistencies between system-calculated VAT and VAT recalculated from the underlying transaction values. Such inconsistencies may arise from incorrect tax code configuration, differences in rounding logic, or manual invoice adjustments.

Duplicate Supplier Invoices

Duplicate invoices in the accounts payable ledger create both financial and tax risks. These errors may result in duplicate VAT recovery and often indicate weaknesses in invoice-processing controls.

Logical VAT Determination Errors

Logical checks identified transactions where the assigned tax codes did not match the nature of the transaction. This is typically caused by incorrect tax condition records, missing master data attributes, or incorrect integration between logistics and finance.

Master Data Governance

VAT determination is heavily dependent on master data attributes, including VAT numbers, country codes, customer classifications, and tax indicators. Weak master data governance frequently leads to incorrect VAT treatment.

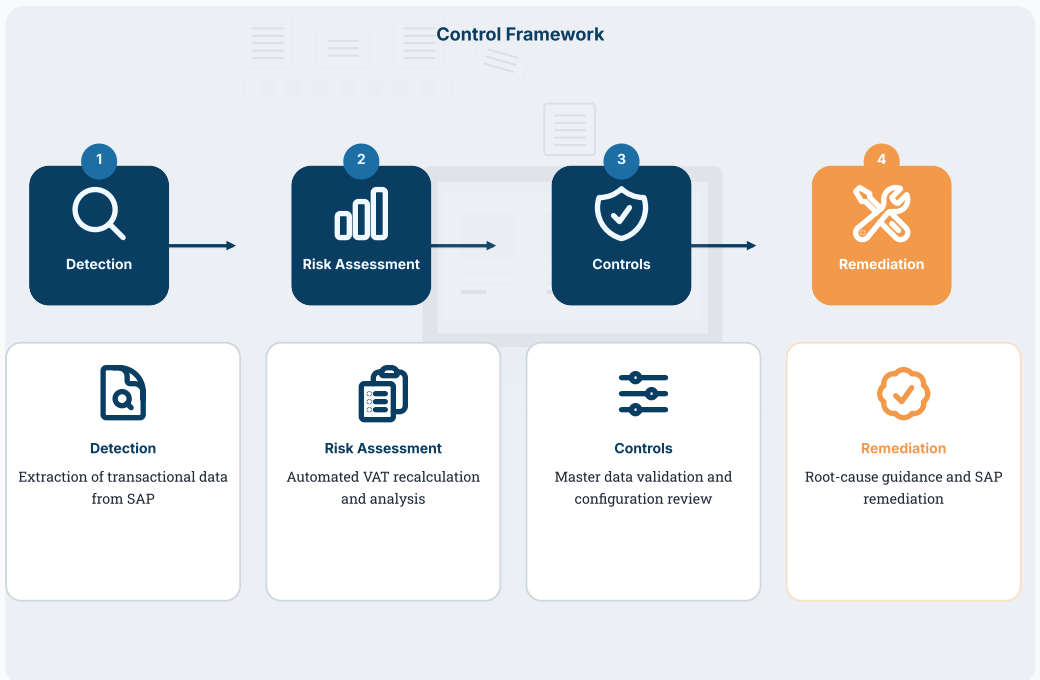
Tax Configuration Risks

Tax procedures, condition records, and tax code design require periodic review. Over time, configuration changes driven by system upgrades or acquisitions may create inconsistencies in the tax setup.

Recommended VAT Control Framework

Organizations should implement a structured VAT control framework that combines governance, monitoring, and system controls. Key elements include:

- Central governance of VAT determination logic
- Standardized tax code design and documentation
- Master data validation controls
- Automated VAT reconciliation analytics
- Monitoring of duplicate invoices and incorrect tax codes
- Periodic SAP VAT configuration reviews



VAT Determination Across SAP Modules

VAT determination is not isolated to finance. It is embedded across multiple SAP modules, including Sales & Distribution (SD), Materials Management (MM), and Financial Accounting (FI). Sales transactions determine VAT based on customer master data, shipping conditions, and tax determination logic. Procurement transactions rely on supplier data and purchasing configuration. Financial postings consolidate these transactions into statutory VAT reporting.

Future Developments: E-Invoicing and Digital Reporting

Governments increasingly require real-time or near-real-time tax reporting through e-invoicing and digital reporting obligations to combat VAT fraud. These developments significantly increase the importance of accurate VAT determination within ERP systems. Incorrect tax logic will no longer affect only periodic VAT returns; it may become immediately visible to tax authorities through continuous transaction reporting.

KGT VAT Health Check Methodology

The KGT VAT Health Check integrates SAP VAT data analytics, VAT configuration reviews, and transactional testing to identify VAT risks and supports User Acceptance Testing. The features of the SAP add-on solution include:

- Extraction of transactional data from SAP
- Automated VAT recalculation checks
- Review of tax code configuration
- Master data validation
- Identification of duplicate documents
- Assessment of cross-border VAT logic

A notable feature is the "full flow" check in SD billing, which provides a comprehensive overview of VAT codes applied throughout the invoice chain for a sales order linked to a local sales office. This is particularly beneficial for analyzing transactions among multiple parties and ensuring compliance with local VAT regulations for goods supplied from European warehouses. For instance, intercompany partners Party A and Party B can observe tax determination results throughout the entire process, including IC outbound (Party A), IC inbound (Party B), and outbound customer invoices (Party B).

In addition to the SD module, the tool incorporates features pertaining to the FI aspect. It conducts thorough validation of accounts payable and accounts receivable entries, as well as tax postings, before finalizing VAT reports and other tax-related obligations. These controls are instrumental in minimizing errors, reducing both current and future manual efforts, and enhancing audit preparedness.

KGT can develop client-specific checks based on a client's needs or a client's complex business model

The SAP add-on for VAT data analysis compares computed results with the tax codes SAP applies to identify discrepancies. It provides comprehensive end-to-end monitoring and detection. KGT tracks tax codes throughout the invoice lifecycle, including SD billing, accounting documents, intercompany inbound transactions, and final customer invoices. It flags issues such as missing tax codes, mismatches, empty VAT IDs, incorrect exchange rates, duplicate invoices, and more.

How KGT stands out vs. other vendors

Many analytics vendors focus on reporting, dashboards, or on-the-fly checks, yet they still treat documents in isolation. KGT's differentiators are:

Chain context, not just documents:

KGT links transactions across parties and time, which is essential for correct VAT in triangulation, chain exports, drop-shipments, and intercompany flows.

Native SAP integration:

running within SAP removes runtime, authorization, and data-transfer barriers common with external tools. Results are real-time and actionable by SAP users.

Embedded tax expertise:

KGT encodes tax-expert reasoning and country-specific rules, not just raw rule lists—so it surfaces the precise conditions that cause risk, not only symptoms.

Flexible and client-specific:

scriptable checks and customizable thresholds allow adaptation to unique business models and risk tolerances.

From detection to remediation, the solution includes ticketing and finding management, root-cause guidance, and practical SAP remediation recommendations. When your SAP VAT determination logic needs rectification, KGT is committed to providing a thorough end-to-end solution to address and remediate any underlying issues.

Benefits for the organisation:

- Substantial reduction in VAT misfilings and exposure to assessments, interest, and penalties
- Faster month-end close with fewer manual corrections
- Less firefighting for IT—permanent fixes instead of repeated patches
- Better audit evidence and defensible documentation for tax authorities
- Scalable coverage across all legal entities in the same SAP landscape

Conclusion

VAT determination in SAP is a critical control area that requires continuous monitoring and governance. A structured VAT Health Check enables organizations to identify configuration risks, process weaknesses, and compliance exposures before they lead to financial impacts or disputes with tax authorities.

Modern VAT compliance is a chain problem. Legacy SAP VAT logic—and many bolt-ons that inherit its single-document mindset—are ill-suited to today's cross-border, multi-party commercial reality. KGT's SAP VAT Data Analysis brings chain context, embedded tax expertise, and in-SAP real-time analytics to identify and remediate the root causes of VAT risk. For companies with complex cross-border operations, this results in faster detection, lower exposure, and a tax function that can move from firefighting to governance.

Call to Action

To safeguard your organization against VAT risks and enhance compliance, consider partnering with KGT for a comprehensive VAT Health Check. Contact us today at

[**salessupport@kgtapplications.com**](mailto:salessupport@kgtapplications.com)

to learn how we can help your organization navigate the complexities of VAT governance.