



# **VAT Compliance**

## **The business case for a tax engine**

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# VAT compliance is not for free; why would you want a tax engine for VAT?

The answer to this question is that it becomes increasingly important that an organization is in control of VAT. The legislative drivers behind this include increased reporting requirements imposed by various countries, increased data analysis capabilities and exchange of information, and a shift in Tax Control Framework discussions towards indirect tax.

When looking at these external forces, e-compliance reporting obligations like real-time reporting, SAF-T, Continuous Transaction Controls (CTC), pre-filled VAT returns, etc. require a business to process transactions first-time right for VAT. It is quite common practice in a standard VAT reporting process to make several adjustments, both to individual transactions and to boxes in a return. Under the aforementioned e-compliance, there will no longer be room for the traditional corrections as part of the periodical VAT reporting process as your transactions are already reported the moment they occurred. Even if there is room for modifications, in a CTC environment, the tax authorities will see all your corrections and easily result in additional questions or an audit on your Control Framework. The standard revisions you have built into your compliance process or VAT reporting software will no longer work as you will have to embed those corrections in your transactions. Otherwise, there will be a structural mismatch between your real-time reported transactions and your VAT returns. So, for these external reasons, you would want a tax engine to optimize first-time right processing of transactions and invoices.

But taking one step back, as a business, should you not already have quite a rigid control framework around one of your most substantial monetary flows, which is VAT? The aggregate of input and output VAT can easily be 30% of your total revenue.

One of the challenges in VAT is that the end-to-end process is scattered over various departments in your organization, starting with your master data team through procurement and sales, ending with accounts payable and finance. Every department has its responsibilities contributing to your company's overall VAT position, but the question is if somebody owns the end-to-end VAT process. Even if not formally laid down in a Responsibility Matrix, most probably, the tax or VAT manager will be held accountable if something goes seriously wrong in the end-to-end VAT process.

Two important root causes for things going seriously wrong are **incorrect human interference** and incorrect or incomplete **master data**. To squeeze out the human errors that will occur in both your Order to Cash (O2C) and your Procure to Pay (P2P) processes, the best solution is to automate the VAT determination in these processes. As a result of such automation, there should be less or no human intervention in the tax coding as you centrally set the requirements and tolerances already during implementation. With a tax engine, the additional benefit can be that the burden of non-compliant transactions is no longer with finance in the VAT reporting process but with sales and procurement. These solutions have an option to block non-compliant transactions so these cannot be processed before the transactional data and master data is correct.

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The other issue, as already mentioned, is incomplete or incorrect master data. Because of this, correct VAT calculations in native ERP or VAT add-ons are often hampered and result in incorrect and inefficient VAT reporting and invoice processing. Resolving these issues is time consuming and inefficient and may even result in vendor or customer disengagement. In order to avoid these issues one should consider implementing a solution that enforces correct and complete master data. Implementing a tax engine can create an incentive to clean up the master data as the issues become transparent, and transactions can be blocked or flagged at the source with procurement and sales. Then procurement and sales have an incentive to ensure the correct material, vendor and

customer master data. But the benefit may even go beyond this, as for some master data cleansing is no longer needed with a tax engine.

The globalization of your company is an argument why you would want a tax engine. As a result, this argument may only be valid to a certain extent for your specific situation. This refers to your global ERP and systems landscape, your IT and Finance departments' organization, the appetite for outsourcing, and your VAT knowledge structure. I will discuss each of these briefly.

If your company operates one or more ERP systems, these systems likely contain thousands or even hundreds of thousands of tax condition records that ultimately determine the VAT treatment of your company's transactions. These tax condition records are a spaghetti of hard-coded rules that are all interrelated. As a result, a change in one condition record may affect some other condition records and can make maintenance of the VAT settings in your ERP very complicated. One condition record is only a layer in a myriad of distinct rules, how to keep an overview on which rule takes priority over others?

Add to this, additional systems for procurement, expenses, or eCommerce that feed into your core ERP with their own VAT settings. Do you have the skills and capacity within your company and even the tax department to sign-off on the tax settings in all of these systems and platforms within this continuously changing landscape? With a tax engine you can have one single set of VAT settings leveraged across all of your ERP instances and satellite transactional platforms.

How are the IT and finance departments organized, and what is their level of VAT awareness? In a decentralized organizational model, your IT and finance colleagues are close to the business and local legislative developments. This makes it easier to pick-up, implement, and monitor regional developments and compliance but challenging to control centrally.

On the other side of the spectrum, your IT and finance colleagues are remote from local business and local legislative developments in a very centralized organizational model. This makes it more difficult to pick-up, implement, and monitor local developments and compliance but more comfortable to control centrally. In practice, the organizational model will often be a mixed bag with some IT and finance activities centralized, and some retained locally. But this will even require more automation and workflow tooling. Preferably you would want your central VAT function to be in control and deploy a centralized VAT governance. Through a tax engine the VAT function will (re)gain control, insights and agility on both global and local VAT processes, making a lot of the regional finance and IT activities for VAT unnecessary.

Outsourcing adds to the complexity of your control framework. First, these are often contracts aimed at efficiency and cost reduction, so it is a challenge to include activities and KPIs that are not considered core, such as correct VAT determination. Second, if part of the contract is offshored, the chances are that a language and knowledge gap will appear. And third, outsourcing results in the disappearance of local business and tax knowledge and your traditional network of colleagues that formed part of your tax control framework.

For (partially) exempt businesses optimization of VAT recovery rates is a clear but time-consuming target. With manual processes, chances are that VAT recovery is not optimal. A tax engine can have a myriad of special conditions and lookup tables triggered by special events to enhance and protect VAT recovery rates.

**Finally, your tax or VAT knowledge structure.** You will need to ensure that your systems are continuously updated for rates and rules changes in a truly globalized company. If VAT is to be reported in real-time by your businesses while VAT is increasingly used by governments as a flexible policy instrument to stimulate the economy in times of crisis, it requires quite a network to keep your systems up to date. While the pace of legislative change is increasing, do you have the structure and capacity to stay agile?

Your organizational structure and the changes that may be implemented can significantly impact your VAT Control Framework. At a certain point, and this may already be the case, you will reach a position where you will need a tax engine for VAT to support your company's goals while at the same time ensuring compliance. It is crucial for a tax or VAT manager to prepare for this moment and have your network and connections in place to jump on the train when it's time to jump.

## Side by side comparison of the options

If you are convinced VAT automation is the right approach to stay in control with many internal and external factors, your company's requirements need to be defined and alternatives need to be investigated in much detail. A side by side comparison needs to be made between native ERP, VAT add-ons and tax engine solutions. Each of these solutions fulfill certain requirements that may or may not be of importance for your specific organization.

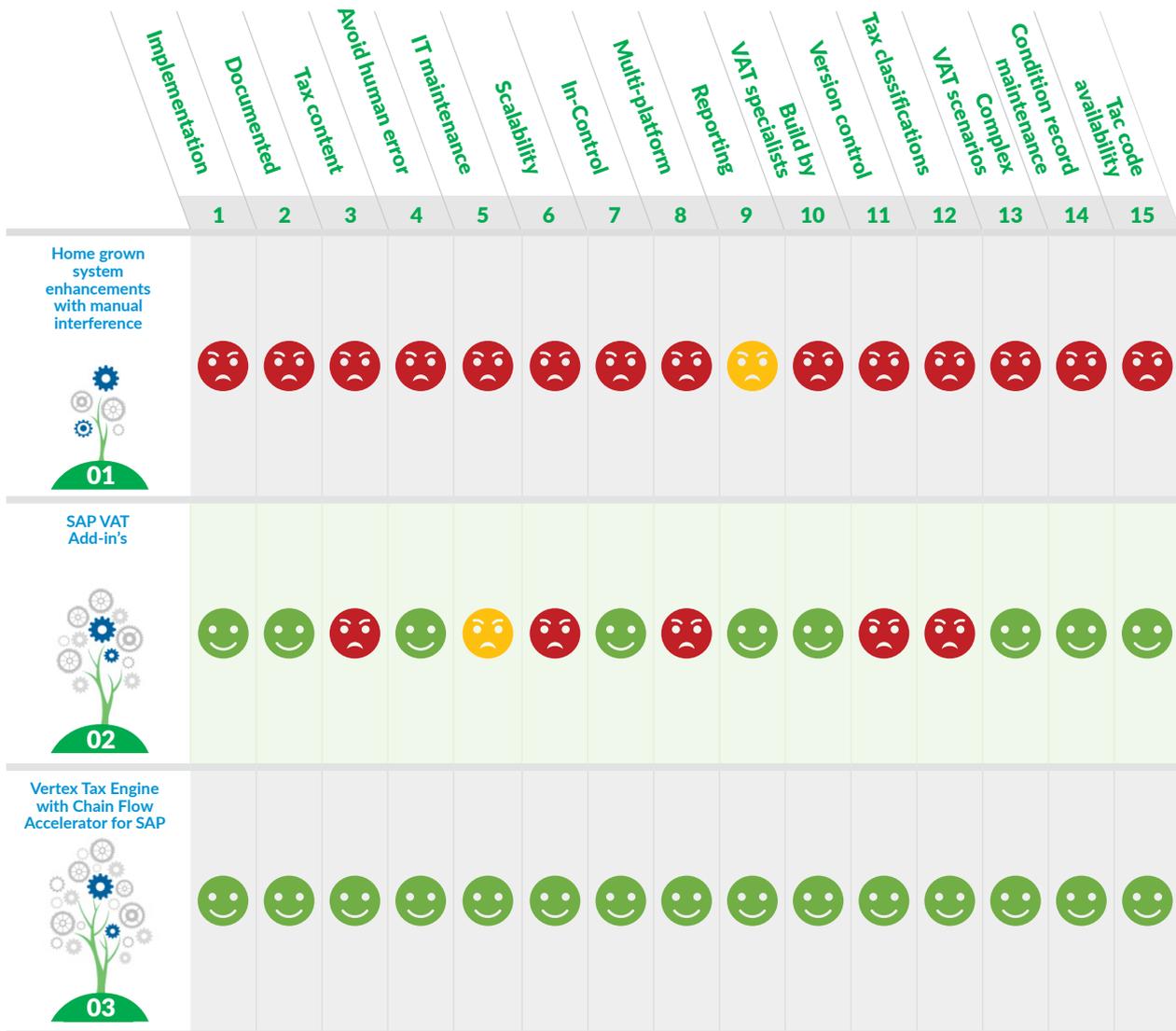


Figure 1: Side by side comparison of VAT solutions

## 1. Implementation

When implementing VAT rules and logic in native ERP, a huge effort is needed to create enhancements (program changes) in your system as out of the box, most ERP's do not facilitate complex VAT scenarios such as drop-shipments. By implementing a tax engine or an add-on, programming this VAT logic is simplified and significantly reduced as this is already embedded in the solution.

## 2. Documentation

A tax engine is a standard solution tailored to your needs and as a third-party software solution (SaaS) all aspects of the solution are well documented. On the contrary, documentation on home-grown VAT conditions in native ERP is often missing and the only reference is your IT department or the external implementer.

## 3. Content

With native ERP and VAT add-on's rates and rules have to be manually created in your ERP system. For maintenance and updates, access to your ERP is required and resources are needed for tax research to stay up to date with relevant VAT changes. In a tax engine legislative rates and rules are embedded and maintained in the software or cloud solution and are automatically updated.

## 4. Avoid human interference

In native ERP it is difficult, or even not possible, to block non-compliant transactions or stop people adjusting system fields for a desired outcome. Tax engines have options to either flag or block non-compliant transactions. Often, for VAT determination, fields are used that cannot be modified by AR or AP clerks when processing transactions or invoices.

## 5. IT maintenance

With a tax engine, VAT content AND logic is maintained outside your ERP by your SaaS provider, so changing rates and rules do not require IT resources. On the other hand, with a VAT add-on, maintenance requires access to ERP and as a result IT involvement and with native ERP, your IT department will need to maintain the coding within the ERP systems.

## 6. Mess up the code

With native ERP and VAT-add-on's the VAT conditions are embedded in your ERP system. As a result of this, everybody who is authorized to perform coding activities in your ERP can change your VAT conditions and mess up your VAT. With a tax engine, all VAT relevant coding is outside your ERP and can only be modified by the SaaS provider.

## 7. Scalability

With a tax engine it is relatively easy to include additional jurisdictions, regions or legal entities by either extending a license or implementing an API into the ERP of the acquired legal entity. With an add-on, adding an acquired company requires either embedding this company in your ERP system or embedding the add-on in the acquired entity's systems. With native ERP there are certainly no scalability advantages.

## 8. In-control

Both a tax engine and a VAT add-on have embedded VAT controls and options to block or flag non-compliant transactions. Therefore AP and AR teams processing transactions can rely on strong up-to-date tax conditioning logic. Native ERP does not have an embedded VAT control framework.

## 9. Multi-platform

A single tax engine can be connected to multiple ERP's but also to other financial systems for procurement, expenses or eCommerce. Because add-ons are embedded within a financial system, multiple installations will be needed. With native ERP, for each ERP or other financial system VAT coding needs to be done within the system.

## 10. Reporting

With all three solutions the native reporting capabilities of your ERP can be used. However, with a tax engine or a VAT add-on the level of assurance that your VAT outcomes are correct, is much higher. As a result, your reporting process will require fewer quality checks and corrections.

## 11. Build by VAT specialists

In native ERP all condition records are build and maintained by generic IT specialists, and these are seldomly also VAT specialists. On the other hand, tax engines and VAT add-ons are designed and build by dedicated service providers that combine deep ERP and VAT knowledge and as a result these solutions are built by VAT specialists.

## 12. Version control

A tax engine is maintained and managed by your SaaS provider and as a result you will always use the latest version of the software. By definition, this is not the case with an add-on as version updates need to be uploaded and implemented in your ERP.

## 13. Tax classifications

Material, vendor and customer tax classification drives the taxability of a transaction in native ERP and also with an add-on. With the Vertex tax engine, it is possible to bypass incorrect tax classifications and still arrive at a correct tax determination.

## 14. Complex VAT scenarios

Complex VAT scenarios like drop-shipments are difficult to manage in native ERP as the number of variables required to determine the correct VAT for a transaction increases exponentially and the required link between purchase and sales is not automatically established. With an add-on or a tax engine you ensure all relevant data is exchanged between the sales and purchase legs.

## 15. Condition record maintenance

In native ERP all VAT rates and rules are embedded in hard-coded tax condition records. If anything changes in VAT rates and rules, or in business scenarios, recoding and testing of these tax condition records is required. With a tax engine or an add-on these hard-coded tax condition records are no longer needed, and all relevant VAT logic is embedded in the software solution.

## 16. Tax code availability

In native SAP, tax codes are limited because of the two-character structure. Tax engines solve this by assigning a validity date and as a result there is no need to create new tax codes just for VAT rates changes.

## VAT compliance is not for free; the challenge of selling a tax engine to your stakeholders

One critical step in the end-to-end VAT process is determining a sales or purchase transaction's taxability. In SAP, this is done by assigning a tax code to the transaction. Traditionally this is configured in ERP systems or it is a manual process. Adding a tax engine improves these processes significantly. However, this comes at a cost, so how do you sell this to your stakeholders?

The role of in-house VAT managers is subject to constant change. In the past, meetings were attended with VAT legislation at hand and lengthy VAT technical discussions were conducted about why a specific transaction was not compliant. Nowadays, many VAT managers have their generic VAT knowledge in their heads while discussing technology, systems, processes, and controls. This shift in approach has also made apparent that the traditional way of educating and controlling your organization with training, newsletters, and sanity checks is no longer sustainable. The emphasis nowadays is on data, automation, and real-time continuous controls with an increased focus on agility; being able to quickly comply with multiple new requirements at speed.

As a VAT manager, if you want to automate steps in the end-to-end VAT process, you will often be asked to build a business case. It must be admitted, this can be quite a challenge as you start making transparent to your organization what the cost of VAT compliance is.

The costs part of a business case, in general, is not much of a problem as this is based on the fee quote of the external software and implementation providers and, if relevant for your company, some internal implementation costs. But here you should already be aware that some stakeholders may prefer an investment or CAPEX model while others might prefer a subscription or OPEX model. Another important aspect is that these costs should be balanced against alternatives and existing costs.

The challenge in the business case, however, is on the benefits side. From a VAT manager perspective, it is evident that there are many quantitative and qualitative benefits. Still, these are either difficult to quantify or can be obstructed by sometimes populist counterarguments, it's better to be prepared and build alliances already well ahead of creating the actual business case.

Before diving into the various benefits and how to present those, it would be good to build a stakeholder picture for this project and assess their personality types in your business. While doing this, you should identify who are decision-makers and who are influencers and determine who might be consulted by your direct stakeholders in this process.

In the process of identifying your stakeholders, the main priority is to focus on (1) their strategic agenda, (2) their operational challenges, and (3) their risk appetite.

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The **strategic agenda**, which should align with the overall company strategy, is likely to provide insights into how to communicate indirect tax automation benefits. Suppose the CFO wants to centralize finance operations into a few regional shared service centers. In that case, this implies a loss of local tax knowledge, while compliance requirements remain equal or even increase. Implementing a tax engine could facilitate this ambition. If the CIO wants to reduce the number of IT costs, reducing the need to maintain all sorts of VAT customizations in ERP by implementing a tax engine may help your CIO. Suppose your Head of Tax assumes responsibility over the end-to-end tax processes globally, in that case, a tax engine ensures up-to-date rates and rules for calculating VAT on your sales and purchases globally.

A tax engine can also facilitate solutions for the more **operational challenges** of your stakeholders. The CIO may already face challenges to keep the ERP and other systems up to date with constantly changing tax rules. He may need to spend significant time and resources on understanding the business implications of these changes. Outsourcing these issues to a tax engine software provider may be a viable solution. Your head of finance operations may face a delay in AP invoice processing resulting in late payments to vendors. It is not unlikely this delay is caused by incomplete or incorrect tax data and lengthy discussions with vendors. Implementing a tax engine provides a lever for proper tax data management and allocates the responsibilities for this where they belong in an organization.

**Finally, risk appetite.** What is for your CFO an acceptable level of pain that can come out of a tax audit? What outcome will impact the company's P&L and share price? Only a small percentage of a company's transactions have to be processed incorrectly to result in significant VAT corrections. But as these are potential corrections, what is their likelihood? For this, as a VAT manager, you need to be aware of tax audit outcomes globally, and is being compliant for tax valued within the organization, or does the organization have a more entrepreneurial "be creative" attitude?

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## VAT compliance is not for free; do the numbers

If we state VAT compliance is not for free, we'll also have to do the numbers. By implementing a tax engine, you will make visible how much calculating VAT costs. In most organizations, this is a hidden cost as many employees and systems have a role in these processes, and the related costs are generally not captured separately. Only the costs of a tax department and possible external consultants are recorded, but there is way more.

### Costs of a tax engine:

This side of the equation is not difficult to make as the overall costs consist of:

**The license fees**

**Technical implementation**

**Functional implementation**

**Indirect tax consultancy**

**Renewal and maintenance fees**

### Costs of alternatives

Part of doing the numbers is to investigate the costs of alternatives, which includes defining the true cost of “doing nothing”.

#### 1 What are your existing costs?

How much did GCC, Brexit, 2010 place of supply rules for services, 2021 eCommerce and historic VAT rate changes cost your business? In making this assessment, costs of learning the requirements (consulting), costs of change (IT project), costs of risk (creating provisions) and costs of business foregone should be taken into account.

#### 2 What is your opportunity or alternative costs?

What quotation have you received for native SAP VAT conditions? Or for an Add-on? Will you be operating a tax engine alongside this config for Canada, US? How much does it cost to instead activate this already existing tax engine with rates and rules (content) for Europe, LATAM and ASIAPAC?

## Quantitative benefits of a tax engine

Calculating the benefits of a tax engine can be challenging, and some calculations may be considered arbitrary. The two main categories here to focus on are the benefits of reduced VAT risks, and efficiencies in the various processes and departments involved in VAT.

### Reduced VAT risks

This element of the quantitative benefits focusses on the actual outcomes of historical tax audits and corrections.

#### TAX AUDITS

Identify the average annual amount of **VAT corrections** in the last 3-5 years that have been booked as a cost for the company. So, any corrections transferred to vendors or customers through corrected invoices should not be included. On top of the actual correction in most cases, penalties and interest are also charged as a result of a tax audit.

In addition, during a tax audit, third party support is needed, so **consultancy costs** incurred for support in the audit should also be collected. But actually, the consultancy costs category goes beyond audits as quite often consultants are asked to review transactions, either manually or through data-analysis. These costs should also be included.

While assessing the outcomes of past tax audits it is important to realize that these historic outcomes are no guarantee for future audits. For future audits tax authorities are more likely to find issues by using technology and data analytics to test all transactions rather than a sample.

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### Efficiencies

Without proper automation, the end-to-end VAT process is often an inefficient -sometimes manual-process prone to errors. The difficulty here is that too often there appears to be a gap between the ideal or designed process and what is actually done? This potentially transfers a tangible benefit into a non-tangible benefit of improved quality.

One may be confronted with the argument that some calculated benefits can be marked as theoretical and cannot be easily monetized. This is very much the case in a decentralized organization, where VAT management sometimes is only 5% of a person's activities.

## PROCURE TO PAY

In the P2P process, VAT determination on AP invoices in most organizations is a manual process. Automating this through a tax engine has five distinct benefits.

### 1 There is a time saving on invoice processing

The invoice is the leading document for VAT, but an AP clerk cannot rely on a 3-way-match or a PO when assigning a tax code to an invoice. This implies an analysis of the actual transaction as displayed on the invoice, and based on that information, designating a tax code. The time this takes is most likely to be an estimate ranging from 1 to 5 minutes per invoice, dependent on the invoices' complexity.

### 2 Increased VAT deduction on complex invoices

AP clerks are often on a production target of x invoices per day, and correct VAT processing too often is not part of their targets. As a result, complex invoices with multiple VAT rates (for example, the invoice for a marketing event in a hotel) are booked against a tax code without VAT deduction. As a result, the VAT becomes an unnecessary cost. Quantifying VAT lost in this manner requires random checking, by the tax department, of invoices for which no VAT has been deducted.

### 3 Failure to discharge reverse charge obligations

### 4 Incorrect over-deduction of blocked VAT

### 5 Reduced training effort

The assumption here is that AP clerks require less knowledge as they take less indirect tax decisions. However, automation cannot (yet) assign a tax code to all invoices. As a result, the complicated cases remain with the AP clerk. If these more complicated cases can be assigned/escalated to a central AP team of super-users, only this team requires training. If the complex invoices are to be processed by every AP clerk, in the end, there will not be a reduced training effort.

## ORDER TO CASH

VAT determination in the O2C process usually is "automated" through the ERP settings. The costs of this are discussed in the IT chapter. However, a standard ERP system allows for loopholes allowing an AR or customer service clerk to actually make manual tax decisions. Automating and locking this through a tax engine has two fundamental benefits.

### 1 Reduced training effort

The invoice is the leading document for VAT, and a business must have a process in place to ensure its invoices are legally correct. This check is often with the AR or customer service clerk as part of the billing process. By automating the VAT determination, manual verification of correct VAT treatment of the transaction is no longer needed. As a result, the AR and customer service departments no longer require VAT training. They only need to ensure to process correct factual transactional information.

### 2 Reduced invoice corrections

Too often, invoices are incorrect from a VAT point of view and require corrections on the customer's request. This results in 1) additional processing costs to create a new invoice and 2) delayed payments by the customers.

## RECORD TO REPORT

Errors made in the P2P or O2C process are identified in the VAT filing process and require corrections, where possible prior to filing a VAT return. Implementing a tax engine results in two distinct benefits in the Record to Report process.

### 1 Reduced time in analysis

Instead of having to focus the analysis on all transactions, the focus can be shifted to outliers and a less frequent periodic systemic check on tax engine settings.

### 2 Savings in data cleansing before filing

Fewer resources are needed to clean up incorrect tax coding on AP and AR invoices as the errors have already been solved in the preceding stages.

The above activities consume a significant amount of time in the VAT return preparation and can result in substantial savings. This is however, under the assumption that these activities are carried out at all, which is not always the case.

## IT DEPARTMENT

The costs of the IT department are often a hidden cost when it comes to VAT.

**The first area** to look in is when a new ERP system is implemented, and old systems are migrated. The IT department will need to ensure all tax conditions, rates and rules are correctly embedded and tested in the new system. This consumes a significant amount of time of both internal resources (IT, super users, etc.) and external users (implementers, consultants, etc.). A good reference to investigate these hidden costs is to assess what historic VAT changes costed.

**The second area** to look into is the amount of time spent on maintaining all the VAT settings and content in the operational system. Each time a VAT rate or rule changes, the IT department needs to ensure this change is well understood and adequately embedded in the thousands of tax condition records. Here, each change requires testing. Both building and testing requires detailed VAT knowledge and understanding of the various technical settings.

By implementing a tax engine, the IT department no longer needs to create company bespoke VAT conditions or maintenance in case of changes, instead these changes are provided by the tax engine providers as best-practice solutions that apply as industry-standard by multiple companies that have similar challenges.

For **our third area**, when running multiple systems, the configuration cannot be inherited by other transactional systems (SAP Ariba /expense / eCommerce) and as a result the VAT logic would have to be purpose-built from scratch for all these systems, and after the build, all these separate solutions need to be maintained.

## TAX DEPARTMENT

Finally, within the tax department, the implementation can result in real savings.

### 1 Reduced transactional questions

Too often, the tax department is consulted on how to apply VAT on specific transactions. As this can be automated, either time can be created for more value-added activities, or efficiencies within the department can be monetized.

### 2 Time and effort to stay on top of rates and rules globally

Researching global VAT rates and rules is a time consuming but also a challenging activity for a tax department. Each change needs to be assessed for its business implications and require a follow-up to relevant departments such as finance and IT. The research part is sometimes outsourced to a Big 4, but by implementing a tax engine, this activity is part of the SaaS solution.

### 3 Increased agility

When VAT determination errors are detected, with a tax engine the tax department can make the required changes instantly and is no longer dependent on IT ticket priorities.

### 4 Missed tax optimization opportunities due to focus on compliance issues

Suppose a VAT manager has a daily hands-on firefighting role. In that case, there is ample time to look at the bigger picture and implement more strategic solutions or initiate tax optimization projects. It may be worthwhile to quantify these missed opportunities and ideas in the VAT manager's head or long-term to-do list.

### 5 Reduced "internal" audit effort

The tax department needs to spend less time on developing and running internal tax audits, examining exception reports and following-up on issues detected. Conceptually the outcomes of these internal tax audits would be late in a real-time reporting environment.

### 6 More efficient financial audit

The financial auditor may also want to have a look at the VAT processes as VAT is a sizeable financial flow in a business. A tax engine will save significant time in this review.

## Qualitative benefits of a tax engine

Implementing a tax engine delivers multiple qualitative benefits. An advantage of this group of benefits is that they are less likely to be subject to debate. However, the disadvantage is they can't be quantified and, as a result, in some organizations are considered to be less relevant.

### Avoid reputational damage

Reputation has a few different angles that all benefit from a tax engine. The first is an improved relationship with vendors. AP invoice processing is less likely to get stuck on VAT, and as a result, more invoices will be processed and paid on time. The second angle is an improved relationship with customers. By implementing a tax engine, sales invoices are less likely to contain VAT errors, as a result, your customers will complain less about your invoices. The third angle is avoiding reputational damage because of significant tax errors and fraud, identified in an audit after several years, that may end up in the media if the error has snowballed to major tax corrections and penalties.

### Tax authority relationship

Most tax authorities expect you to be in control of your tax processes. With VAT being scattered amongst numerous departments, showing as a tax department that you actually manage the VAT process through a reliable tax engine will be highly valued by most tax administrations. The result of such an improved image is that you are less likely to receive questions and audits, and at the same time, you will be less vulnerable in case of an audit. In some countries a company's risk profile is even lowered from medium risk to low risk.

## Improved overall quality

From an in-control perspective, too often, not every step in the process is conducted properly. In many organizations, VAT management is a side activity within finance operations, lacking sufficient resources and knowledge to manually verify AP and AR transactions for correct VAT processing. By implementing a tax engine, overall VAT quality will improve as some of the checks and balances will now be embedded in the system and automatically executed.

This improved quality will provide peace of mind to your In-Control or internal audit department, but also to the many persons involved in the end-to-end VAT process.

## Facilitation of “other” projects

Manual processing of AP invoices can take up to 17 days<sup>1</sup>, so there is a drive to automate this process in many organizations. However, invoice processing solutions often do not include VAT, and as a result, VAT determination becomes a bottleneck for implementing full automation. Adding a tax engine facilitates projects to deploy **touchless AP**. The tangible benefit of this is already included in the time saving on invoice processing.

**Outsourcing or offshoring of AP** processes will also become easier by implementing a tax engine. As the required VAT knowledge is embedded in the software, AP clerks no longer need to be close to legislative developments.

**Implementation of expense management software, eCommerce platforms, and procurement software** is facilitated by a tax engine. All of these platforms include options for VAT determination, but by implementing a tax engine, it will be easier and cheaper to deploy these platforms as the relevant VAT determination for these platforms and software can also be done by the tax engine.

## No surprises in procurement

For some businesses or projects, VAT should be included as a cost. A tax engine is linked to multiple steps in the end-to-end procurement process, and as a result, the costs of VAT can already become transparent during the requisition phase. This facilitates project budgeting and fewer surprises.

## Must have for real-time reporting

Finally, a tax engine is a must-have for the increasing number of tax administrations that deploy real-time reporting or invoice clearance. Invoice processing needs to be first-time-right as there is less room for the traditional checks and corrections that you have in conventional VAT reporting. Despite the fact that real-time reporting and invoice clearance systems leave room for corrections, every correction you make is instantly visible to the tax authorities and too many modifications are likely to trigger questions and audits.

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<sup>1</sup> <https://www.basware.com/en-en/blog/april-2018/7-accounts-payable-metrics-that-will-grab-your-ceo/#:~:text=AP%20Metric%20%232%20%E2%80%93%20Average%20invoice%20processing%20time&text=Market%20estimates%20vary%20according%20to,an%20average%20of%2017%20days.>

# About the author

## Peter Boerhof, VAT Director, Vertex

Peter Boerhof is the VAT Director for Vertex. In his role he provides insight and thought leadership regarding the impact of tax regulations, policy, enforcement and emerging technology trends in global tax. Peter has extensive experience in international transactions, business restructuring, tax process optimization and tax automation. Prior to joining Vertex, Peter was responsible for leading the indirect tax function at AkzoNobel. He holds an MBA from Rotterdam School of Management and a masters in tax law from the University of Groningen.

## About Vertex

**Vertex Inc.**, is a leading global provider of indirect tax software and solutions. The company's mission is to deliver the most trusted tax technology enabling global businesses to transact, comply and grow with confidence. Vertex provides cloud-based and on-premise solutions that can be tailored to specific industries for every major line of indirect tax, including sales and consumer use, value added and payroll. Headquartered in North America, and with offices in South America and Europe, Vertex employs over 1,100 professionals and serves companies across the globe.

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