

# Finance System Transformation for Auto Manufacturers: Focusing on Procurement

## »» Introduction

The automotive manufacturing sector is in a period of digital transformation as electrification, autonomous driving, and connected vehicles are forcing companies to rethink how they run their operations. Behind the scenes, auto manufacturers are also managing new design and manufacturing trends, selling more products online, improving quality control, and looking for new ways to effectively manage their interconnected, global supply chains.

To navigate these changes, manufacturers need robust, capable software systems that reduce friction, eliminate time-intensive manual work, and help them deliver higher levels of customer service. Unfortunately, many of these companies still rely on a mix of legacy software systems, disconnected applications, and spreadsheets to manage their finances.

By moving to modern financial management software, automotive manufacturers can better monitor and forecast their complex and ever-changing operations in this increasingly competitive business environment. Indirect tax compliance can be especially complex and time-consuming, for example, and particularly for companies running complex supply chain operations across multiple jurisdictions.

This white paper highlights the key challenges that automotive manufacturing procurement teams, IT specialists, and CFOs encounter as they transform their operations in today's digital-first world. It also shows how an advanced indirect tax management solution, integrated with a leading enterprise resource planning (ERP) solution, can improve compliance, reduce costs, and allow team members to focus on more strategic projects.

## The Fourth Industrial Revolution

We are now in the fourth industrial revolution, also referred to as Industry 4.0. Characterized by increasing automation and the employment of smart machines and smart factories, informed data helps to produce goods more efficiently and productively across the value chain. This data-driven approach means manufacturers can better meet their customer's demands through mass customization, and with the goal of achieving efficiencies through a just-in-time approach to inventory management.

By collecting more data from the factory floor and combining it with other operational data, a smart factory can achieve information transparency and better decisions. The technology used to collect and analyze that data includes:

- Internet of Things (IoT): A key component of smart factories.
- Cloud computing: A cornerstone of any Industry 4.0 strategy.
- AI and machine learning: Allows manufacturing companies to leverage the high volume of information generated not only on the factory floor, but also across business units and from partners and third-party sources.
- Edge computing: The demands of real-time production operations mean that some data analysis must be done at the “edge” — that is, where the data is actually created.

Automotive companies face unique challenges with these technologies. Remote maintenance and updates, the integration of entertainment and apps, the proliferation of IoT, and the introduction of subscription models for modern cars all contribute to the complex taxation tapestry in the dynamic automotive sector.

Four prominent technological trends, collectively known as ACES (Autonomous driving, Connectivity, Electrification, and Shared mobility), stand out as pivotal drivers of innovation. While these trends promise transformative improvements in the automotive experience, they simultaneously unfurl a cascade of tax complexities.

**Autonomous Driving:** The advent of autonomous vehicles not only reshapes the driving experience but introduces intricate tax challenges. Determining the tax implications for self-driving technologies, including software and hardware components, becomes a pivotal consideration.

*As an example, indirect tax implications may arise in the form of Value-Added Tax (VAT) on the sale of autonomous vehicle software updates. As vehicles become equipped with advanced self-driving capabilities, software upgrades to enhance autonomous features might be subject to VAT. Tax authorities may scrutinize whether these updates are considered goods or services, impacting the applicable VAT rates.*

**Connectivity:** Enhanced connectivity features in vehicles demand a fresh look at tax considerations. Tax professionals must grapple with the taxability of data exchanges, communication services, and the integration of advanced connectivity solutions within vehicles.

*Example: The introduction of advanced connectivity features, such as in-car streaming services, could trigger indirect tax implications. VAT or GST may apply to the subscription fees for these entertainment services. Tax authorities may need to distinguish between the taxation of tangible goods (the vehicle) and intangible services (entertainment streaming), requiring a careful assessment of the applicable tax rates.*

**Electrification:** The shift towards electric vehicles prompts a reevaluation of tax structures. Addressing tax implications related to charging infrastructure, battery technology, and eco-friendly incentives becomes imperative.

*Indirect tax considerations may arise in the context of electric vehicle (EV) charging stations. Tax implications could include the assessment of sales taxes on the purchase of charging infrastructure, as well as potential exemptions or reduced rates for eco-friendly initiatives. Determining the appropriate tax treatment for EV charging services becomes crucial in this electrification trend.*



**Shared Mobility:** The rise of shared mobility, including car-sharing services, necessitates a nuanced understanding of tax implications for fleet management, usage-based taxation, and revenue-sharing models.

*Indirect tax implications may manifest in the form of local taxes on ride-sharing services. Municipalities may impose taxes or fees on each ride provided through a shared mobility platform. Additionally, tax considerations may extend to the income generated by individuals participating in car-sharing services, warranting attention to local tax regulations governing such sharing economy activities.*

As the automotive industry adapts to these ACES trends, the ripple effect on computing and mobile network requirements is undeniable. The concomitant tax challenges demand strategic foresight and proactive measures. Tax professionals in the automotive sector must navigate this intricate landscape, where traditional tax frameworks may prove inadequate.

As automotive companies ride the wave of technological innovation and embrace ACES trends, they must concurrently address the evolving tax landscape. This necessitates a holistic approach, blending technological acumen with tax expertise, to ensure compliance and seize opportunities in this transformative era.

## **CIOs and CFOs Have a Lot on their Plates Right Now**

In the automotive sector, CIOs are grappling with large enterprise transformation projects, such as cloud migrations and upgrades to major enterprise systems. They are looking for solutions that fully integrate with enterprise resource planning (ERP), e-commerce, procurement, and other systems. CIOs are also tasked with hiring and retaining suitably qualified staff at a time when companies are working to do “more with less” — a mindset that’s placing growing pressure on IT budgets and the need to operate more efficiently.

As it relates to tax systems, CIOs are most concerned with the integration of any new system within the broader enterprise architecture, followed by maintaining security compliance. With this in mind, these professionals are often instrumental in setting the timing of any tax system implementation in the broader framework of other system transformation initiatives.

For automotive CFOs, one of the biggest challenges is maintaining organizational profitability against a backdrop of macro headwinds (e.g., higher input costs, market fluctuations, etc.), rising costs of capital, and myriad other internal challenges (i.e., losing internal knowledge to outsourcing, difficulty identifying, hiring and retaining talent, and so forth).

Regarding technology, CFOs are grappling with multiple financial systems and the need for more functional capabilities. They're concerned about the lack of accurate insights this causes and the inefficiency, risk, and cost associated with disparate software systems and too many data silos. In terms of tax management, CFOs must be able to stay abreast of regulatory changes, ensure organizational compliance, and use automation to eliminate the time, cost, and risk associated with manual processes.

## What's Keeping Procurement Up at Night?

Procurement is a critical strategic function in the end-to-end automotive manufacturing supply chain. As an integral and crucial part of the inbound supply chain, procurement wouldn't typically be outsourced. Some of the broader industry changes that are keeping automotive procurement, IT, and finance teams up at night right now include (but aren't limited to):

**Technology transformation:** Some legacy procurement systems that automotive manufacturers use are homegrown and/or highly tailored to address unique, industry-specific purchasing nuances. These standalone solutions frequently lack the functionality needed to perform complex tax calculations.

This approach is more frequently subject to upgrades and improvements as procurement leaders strive to generate more value for the business. Many advanced technologies being embraced by procurement groups extend well beyond traditional ERP systems and include digital procurement, e-invoicing, supplier risk management, e-sourcing, data visualization, and robotic process automation (RPA) tools, among others.

**Supply chain:** Industrial operations depend on a transparent, efficient supply chain, which must be integrated with production operations as part of a robust Industry 4.0 strategy. This transforms the way manufacturers resource their raw materials and deliver their finished products. Sharing of relevant production data with suppliers facilitates just-in-time (JIT) deliveries. If, for example, an assembly line is experiencing a disruption, deliveries can be rerouted or delayed to reduce wasted time or cost.

Supply chain resilience is the ability of the supply chain to adapt and recover from disruptions, such as natural disasters or geopolitical events. This implies procurement needs a level of flexibility to be able to build extra stock or activate alternative vendors for critical components. Switching between domestic and foreign vendors has a tax impact. For instance, value-added tax (VAT) will be charged when switching to a domestic vendor, impacting cash flow or requiring that exemption certificates be managed. When switching to foreign suppliers, customs duties need to be taken into account, adding to the costs. Dual sourcing (sourcing from more than one vendor) is also a strategy used in automotive to mitigate supply chain risks.

**Outsourcing and insourcing:** To gain efficiency and reduce costs, many companies moved parts of the procure-to-pay (P2P) cycle — including accounts payable — to internal shared services centers and/or outsource service providers. As a support function, AP activities can be outsourced. However, improper AP processing could result in bad payment habits, potentially impacting vendor relations and the procurement function.

In recent years, the outsourcing trend has reversed as the benefits around labor arbitration declined, and automation solutions enabled companies to optimize processes in-house and extract more insights — and value — from sourcing, purchasing, and accounts payable (AP) data.

## The Intersection of Procurement and Tax Management

A concept common in automotive is JIT delivery. This is a production strategy where components are delivered precisely when needed in the manufacturing process, reducing inventory costs. This can be arranged by ensuring vendors hold stock nearby or even at the production plant. The tax-relevant concept here is call-off stock — goods are stored at the manufacturer's site, but the ownership of the goods does not transfer until these goods are used in production. If these goods are supplied from another country, the foreign supplier holds stock in the manufacturer's country, which may trigger specific tax challenges.

Accounts payable teams must accurately assess the tax responsibility on purchase invoices and, where needed, verify amounts and quantities against POs and with their suppliers.

## Addressing Indirect Tax Risks

The tax environment isn't stagnant. There are always new tax-related rules and regulations to follow and new business models to accommodate. One particularly thorny area for automotive manufacturers is indirect tax, or the taxes that governments impose on supply chain participants. The manufacturer or retailer pays the tax, which is ultimately passed on to the end customer. This means team members need to be aware of indirect tax regulatory changes, helping ensure compliance and providing businesses with tested insights and projections using the correct systems.

Tax and IT departments can address tax challenges using appropriate systems that offer reliable, up-to-date tax content along with flexibility, role-specific accessibility, and efficient technology. For example, automotive manufacturers can streamline tax processes

by migrating mission-critical systems like ERP, procurement, and e-commerce platforms to the cloud. This is important because cloud-based platforms can quickly adapt to changes in tax codes and simplify the complexities of transacting business across multiple jurisdictions, divisions, and subsidiaries.

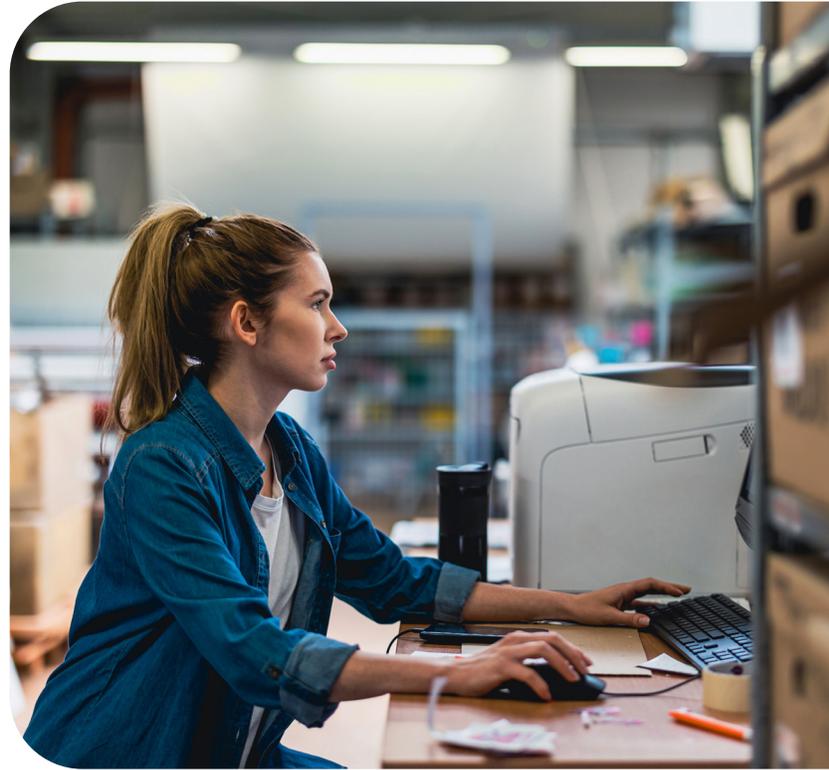
So far, nearly 75% of manufacturers have already upgraded to an ERP solution or plan to do so over the next 12 months. Automotive manufacturers, in particular, are implementing cloud-based ERP solutions, such as SAP's S/4HANA, to lower costs, streamline their operations, and improve integration between applications. With a modern ERP, companies can also use their data more strategically, improve the efficiency of their resources, and remain agile and adaptive in today's changing business environment.

## Controlling Costs: A Strategic Imperative

Controlling costs is a strategic imperative in the automotive industry. Procurement professionals negotiate with suppliers to secure favorable terms, optimize pricing, and identify cost-saving opportunities, contributing directly to the company's financial performance.

Some of the key regulations and taxes impacting automotive suppliers include:

- RoHS Compliance (Restriction of Hazardous Substances) ensures the company is compliant with regulations restricting the use of certain hazardous materials in the manufacture of electrical and electronic equipment, including automotive components. Environmental taxes can serve as an additional incentive for businesses to comply with RoHS regulations. By taxing products that contain hazardous substances restricted by RoHS, governments create a financial motive for manufacturers to adhere to RoHS standards to avoid additional taxation.
- Indirect taxes such as VAT are not generally a cost component for OEMs, as the tax is deductible as input tax. However, customs duties and environmental taxes typically do increase the costs for a business.
- Implementing green procurement practices includes (or should include) considering environmental taxes and reducing waste. This directly impacts costs as it reduces waste taxes, packaging, plastic taxes, and carbon taxes.



Tax compliance determinations are often not the focus until late in the Procure-to-Pay (P2P) life cycle — usually at the invoicing, payment, or audit stage. By then, it may be too late to make meaningful changes or decisions regarding tax determination or take proactive steps to reduce taxes, avoid fines, or correct the tax codes selected. Because AP teams sometimes lack the breadth and depth of tax expertise required to apply the correct tax codes, calculation errors can persist throughout the process.

Misalignment of procurement and tax compliance practices can produce recurring errors that result in tax overpayment or underpayments. Sales tax overpayments eventually must be recouped through time-consuming, manually-intensive detective work and communication with tax authorities. The underpayment of taxes also generates heightened audit exposure, can trigger substantial fines, and possibly damage valuable supplier relationships.

Automotive manufacturers can avoid these problems by ensuring good alignment across their procurement, accounts payable/finance, and tax functions. They can also use technology to streamline interactions and data sharing across these teams, whose time can be put to better use on strategic, value-producing projects (as opposed to hunting for tax data, populating spreadsheets, and generating manual reports).

## Tax Tech Solutions that Solve Real Problems

Cutting-edge procurement platforms deliver major advantages in cost savings, larger volumes of spending data, better sourcing decisions, and faster and smoother purchasing experiences. However, these procurement platforms typically lack the depth of tax data management functionality required to navigate a complex tax compliance environment. As a result, procurement solutions should be integrated with advanced tax automation solutions.

With integrations to SAP S/4HANA, SAP Ariba, SAP Public Cloud, and other SAP systems, Vertex tax calculation solutions enable more accurate and consistent taxation in the sales and procurement process — helping organizations achieve optimal tax performance by increasing transparency, reducing tax-related risk, and streamlining the audit process.



## Reducing Complications and Automating Processes

Every stage of every transaction that takes place within an ERP comes with a potential tax implication. An effective tax management system contributes to operational success by resolving tax complications, automating tax processes, and streamlining operations by facilitating accurate invoicing.

When tax errors occur with any frequency, finance and accounting teams respond by posting larger reserves. This way, additional cash is available to cover underpayments and any audit penalties that tax determination errors may cause. Heightened tax compliance accuracy gives finance and accounting teams the confidence to reduce the level of reserves they maintain, which has a positive impact on the financial statements. Improvements in the accuracy of tax payments also increase the amount of working capital companies have access to – a priority that becomes imperative to address during periods of economic stress.

For the enterprise tax function, a cloud-based integrated tax solution reduces the need for in-house tax research as the ever-changing tax rules and rates are maintained by the tax engine provider. It also improves tax accuracy since tax engine functionality is more robust than native tax calculation in ERP or procurement systems.

Procurement teams experience different benefits from end-to-end tax solutions. They can improve accuracy and efficiency at the requisition and invoice stages—while streamlined invoice approvals help enhance valuable supplier relationships.

For heads of IT, a tightly integrated cloud-based tax solution eliminates the need for hard-coded tax updates in ERP and procurement systems (tax content is maintained in the tax engine). It also improves scalability since a single tax engine supports multiple financial systems across the business, eliminating system hosting and maintenance with cloud deployment.

## Vertex's Manufacturing Expertise for Success

With deep professional services expertise in the automotive sector, Vertex's manufacturing-focused implementation services support companies through every step of the tax determination process in P2P and order-to-cash (O2C) processes. In fact, the partnership of SAP and Vertex has been in force for more than 25 years because of our deep technical knowledge and expertise.

Vertex's solutions are designed to meet the highest standards of the SAP Integration and Certification Center, and Vertex O Series is an SAP-endorsed app. Vertex also offers a range of unique software solutions to help SAP users gain efficiencies – including Vertex Accelerator for advanced integration and reporting tools for rapid deployments; Vertex Chair Flow Accelerator for configurable logic for complex VAT transaction scenarios; and Vertex PLUS tools to drive specialized solutions for solving common P2P, O2C, and data challenges.

## About Vertex

**Vertex** 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 solutions that can be tailored to specific industries for major lines 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 1,400 professionals and serves companies across the globe.

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