The background features a dark blue color scheme with various semi-transparent icons and graphics. On the left, there are large, light-colored gears. In the center, a globe is visible with a gear-like shape overlaid on it. On the right, there are circular icons containing a bar chart and two human figures. The overall aesthetic is modern and technological.

# Intelligent Automation: The Next Frontier in Source-to-Pay Automation

**\*  
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# S2P Transformation is Inching its Way to the Top of the CFO Agenda

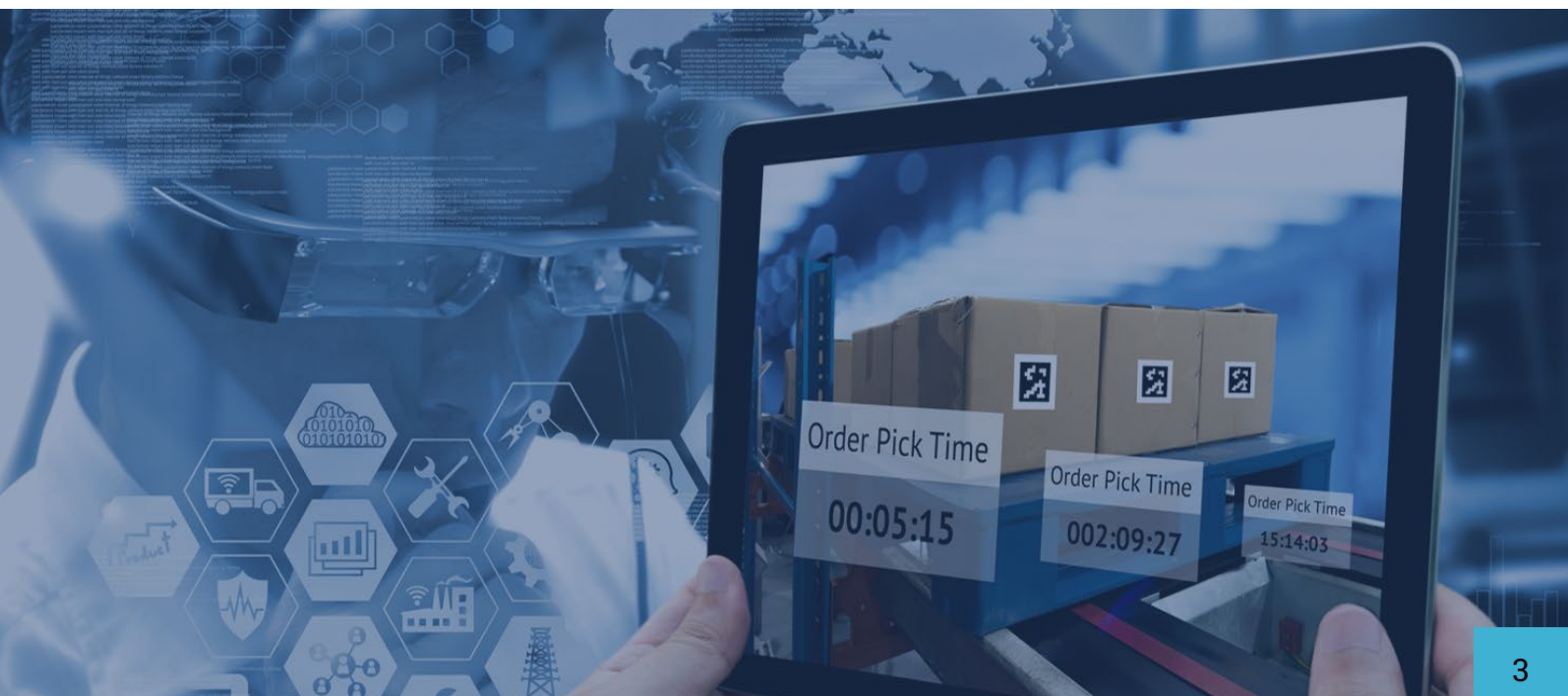
Virtually all organizations have been impacted by the COVID-19 pandemic. With lockdowns and social distancing, companies have moved to remote working models and many have encountered operating challenges related to these new ways of working. Companies that have already adopted digital processes have experienced minimal disruption, however those that are not digitally enabled saw their processing suffer.

In this paper, we highlight how intelligent automation can transform the future for the source-to-pay (S2P) process, discuss its applications across the value chain, and provide insights on how enterprises and service providers can capitalize on the opportunity.

Digitization continues to cause pervasive disruption to various functions across enterprises, and finance is no exception. Research indicates that digital disruption will significantly reduce the costs of traditional finance-related tasks like bookkeeping, accounting and auditing. Arguably, more than other enterprise functions, finance abounds with the types of repetitive processes (such as order management, invoice raising and accounts payable) that lend themselves to optimization through automation. The adoption of automation is progressing in transactional source-to-pay processes such as query handling and payments. According to a recent survey, about half of companies have fully or nearly fully automated these individual processes<sup>1</sup>.

This wave of digital transformation is having a profound impact on the CFO role. Traditionally, CFOs spent a significant percentage of their time reporting historic numbers and optimizing cost. However, the modern CFO is being called on to act as a strategic partner to the business and to spearhead the transformation agenda across the enterprise.

As CFOs become stewards of digital technology, there is an opportunity for the finance function to deliver more value and to shift from traditional transactional processing to strategic partnering.



# S2P Transformation is Inching its Way to the Top of the CFO Agenda (continued)

A recent study found that 75 percent of CFOs said that they now play a critical role in driving digitization across their organizations<sup>2</sup>. As CFOs become stewards of digital technology, there is an opportunity for the finance function to deliver more value and to shift from traditional transactional processing to strategic partnering and advancing the automation continuum. Focus needs to shift from the basics of eliminating manual processing to finding ways to quickly deliver real-time data on budgeted to actual spend, cash flow and other finance-related metrics to support better decision making. More than 70 percent of CFOs say that supporting decision making with actionable data has become their primary focus.

The S2P function represents a key lever that CFOs can use to get visibility and insights that can support effective decision making. Extending end-to-end automation into the S2P function can allow visibility into critical financial metrics – data relating to cash flow, order fulfillment, supply chains and spend – that can empower business leads with insights for decision-making processes, negotiations with vendors, budgeting, forecasting activities and demand management. Automating S2P processes can give companies 80 to 100 percent visibility into indirect spending, which in turns enables businesses to evaluate markets and supplier proposals for strategic sourcing and supporting spend management decisions<sup>3</sup>.

Intelligent automation – the integration of robotic process automation (RPA) with cognitive automation technologies – has opened opportunities for enterprises to improve S2P efficiency and drive strategic business results while reducing the effort and cost of manual tasks. These technologies can automate both rules-based activities, such as creating a report, and more complex, judgement-intensive processes, such as capturing data from an unstructured invoice. Moreover, artificial intelligence (AI) tools can analyze complex problems such as classifying spend into defined categories and analyzing the pattern to deliver insights.



# Unlocking the Future of Source-to-Pay Begins with RPA

The source-to-pay process is key to providing strategic insights. It is far too complex for any one solution to automate the process end to end, and many companies have separate procurement systems, receiving systems and reporting systems. For most organizations, the journey for an end-to-end, digitized S2P process begins with robotic process automation. RPA is perfectly suited to automating these manual, repeatable processes that are highly dependent on data entry and require a high degree of accuracy. Almost 60 percent of organizations are already using RPA for S2P and the other 40 percent are planning to adopt it, according to the American Productivity & Quality Center (APQC), a benchmarking organization.

Using RPA to automate repetitive manual tasks like invoice data entry helps enterprises save time, boost productivity and offer cost saving.

The biggest advantage of RPA is the opportunity to optimize the entire process by freeing staff from doing high volumes of repetitive manual tasks and moving them to more strategic, value-added projects. On average, 58 percent of invoices are still manually keyed into the financial system<sup>4</sup>. Through imaging-enabled RPA technology, bots can retrieve information from documents and enter it into the system without human intervention. Automating the manual task of transactional data entry with RPA also allows businesses to optimize

cost, because an RPA bot costs only about one-third the price of an offshore full-time employee (FTE) and one-fifth the price of an onshore FTE<sup>5</sup>.

Beyond cost saving gains, automating manual tasks through RPA also provides value by improving accuracy. Studies found erroneous data-entry occurrences exist in nearly 88 percent of manual accounts-payable documents<sup>6</sup>. These mistakes can range from input errors to missing information. They can result in duplicate payments, late payment penalties and overpayments, all of which affect a company's bottom line. RPA holds great potential to address these data entry issues by minimizing human intervention in data entry tasks.

## Case in Point

ISG helped a water equipment manufacturer identify and implement specific RPA initiatives to integrate across 100 ERP instances and tools for its indirect transactional procurement activities such as flipping purchase requisition to purchase orders. After the RPA implementation, the client was able to realize:

- 50% reduction in efforts and estimated FTE savings of 20%.
- 80% reduction in time needed to process a PO.
- 100% accuracy and higher compliance for set parameters in a PO.

# Unlocking the Future of Source-to-Pay Begins with RPA (continued)

S2P is replete with tasks – requisitions, purchase orders and invoicing – that require a series of review and approval, which can cause delay in cycle time. Using RPA can enable enterprises to reduce approval lags and make significant improvements in operational efficiency by automating tasks to allow in-email reviews and approvals. Companies have experienced up to 83 percent reduction in processing time and improvement to near 100 percent accuracy by using RPA to automate processes<sup>7</sup>.

RPA has clearly emerged as a critical enabler for taking cost out of operations and increasing efficiency while improving accuracy, especially for basic transaction processing. But S2P also includes judgement-intensive processes like supplier identification, spend analysis and contract management – processes that are not as structured and rule-based and so cannot be automated using RPA. This has paved the way for artificial intelligence (AI), machine learning (ML) and natural language processing (NLP) to take center stage. These cognitive automation technologies have the ability to learn and adapt, which means they can overcome the limitations of RPA and expand the degree of automation that is possible in S2P. They are paving the way for a new level of touchless processing that requires minimal human intervention.

Cognitive technologies – artificial intelligence, machine learning and NLP can expand the degree of automation in the S2P process and pave the way for touchless processing.



# A Roadmap for Source-to-Pay Automation

**Long cycle times, high processing costs and low spend visibility are key challenges in Source-to-Pay**

Organizations have an average sourcing cycle time of about **40** days

**58** percent of invoices are still manually keyed into the financial system

Inability of organizations to manage nearly **40** percent of their total spend

## Intelligent Automation – The Silver Bullet to Transform S2P



**1. Automation (RPA) helps automate repetitive, manual processes such as purchase order creation and requisitions**

**60** percent of organizations are already using automation across some parts of the S2P value chain

### 2. Intelligent Automation for judgment-intensive processes

#### Strategic Sourcing

Automating sourcing with IA enables faster processing and real-time supplier interaction



#### Accounts Payable

Eliminate paperwork and errors by automating purchase orders and invoice reconciliation



#### Spend Analysis

Intelligent automation solutions can cleanse, validate, and classify spend data



#### Contract Negotiation and Management

AI-powered bots can optimize creation, management and negotiation of contracts



### 3. Benefits of intelligent automation in source-to-pay



Streamline all upstream downstream processes and cut down cycle time



Automate repetitive processes and free up resources for more value-added work



Generate useful insights on spend and supplier performance to improve decision-making



Get complete visibility of all spend throughout the value chain

## Enabling Source-to-Pay Transformation with the Right Partnership

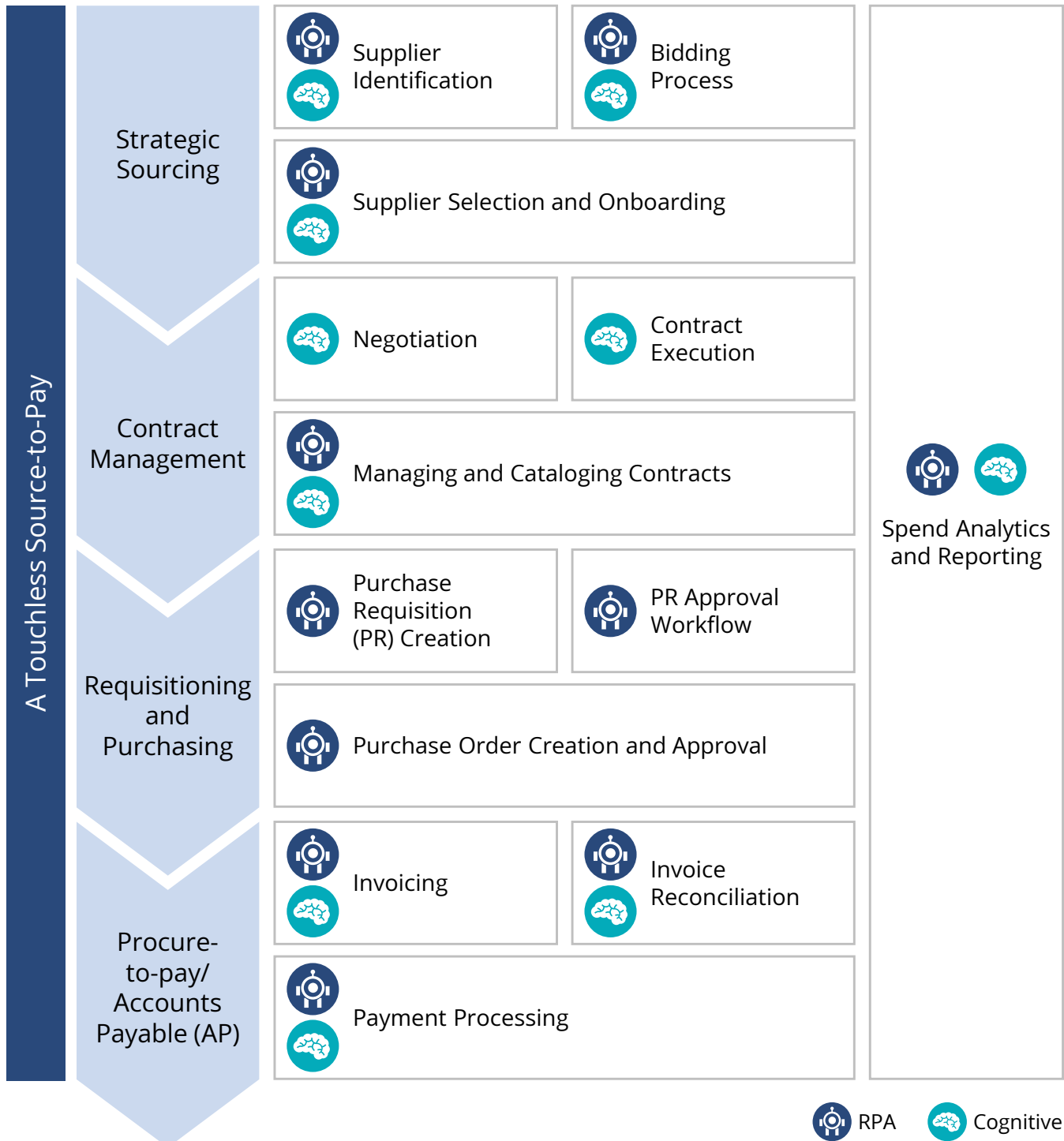
Build business case for automation based on value rather than cost.

Focus on transparency, value maximization and risk mitigation while selecting partner for S2P transformation.

Invest in S2P analytics tools that include risk, performance, and customer-focused analytics.

# Intelligent Automation is the Next Frontier of Source-to-Pay

While repetitive, manual processes such as purchase order creation and requisitions are the most common areas of RPA implementation in the source-to-pay value chain, complex processes like negotiation and bidding process are seeing adoption of cognitive technologies. ISG research indicates that nearly 93 percent of enterprises are either experimenting with or have deployed cognitive technologies in finance processes<sup>8</sup>. The figure below highlights specific processes in the source-to-pay function, and the viability of RPA and cognitive automation in those processes.



Source: ISG

Figure 1 – RPA and Cognitive Technology Opportunities in S2P Processes



# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

## Use of Intelligent Automation across S2P Categories

### 1 Strategic Sourcing with IA Accelerates Processes and Enables Long-term Supplier Partnerships

Sourcing is a complicated process that involves various manual and time-consuming tasks such as identifying new suppliers, running bidding events and supplier onboarding. Organizations have an average estimated sourcing cycle time of about 40 days<sup>9</sup>. A long cycle time directly translates into higher cost and lower supplier engagement. Intelligent automation solutions powered by AI can learn sourcing patterns and behaviors, thereby helping enterprises to identify the best suppliers more quickly and efficiently. These solutions can search supplier websites across public and private databases to narrow down potential supplier profiles. Detailed profiles can be created by automatically extracting keywords from supplier websites. Machine learning can also provide relevant supplier recommendations and create supplier assessments. With intelligent automation, the time it takes to identify the best possible suppliers can be reduced drastically, and the assessment process becomes more objective because recommendations are based on facts rather than the bias of the buyer or business owner.

Intelligent automation can further eliminate the chore of manually compiling and comparing bids for supplier selection. The use of IA equips the bidding team with a complete view of supplier comparisons based on pricing and supplier performance, so the team can finalize its selection of vendors that offer the best overall value. AI-powered tools can check for required accreditations or certifications to suggest which suppliers should be invited to participate in request for proposal (RFP) processes. With predefined rules, these solutions can also select and eliminate bids based on policy and regulatory compliance. Once the supplier is selected, bots integrated with artificial intelligence can automate supplier onboarding steps like background checks and document reviews. These bots can also conduct follow-ups in cases where documents or information are missing, thereby increasing the accuracy and timeliness of the entire process. Automating sourcing with IA enables real-time supplier interaction, resulting in improved communication and better supplier relationships.

# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

## 2 Accounts Payable with IA Drives Touchless Processing

For most enterprises, the accounts payable process wrestles with the challenges of receiving paper invoices and manual reconciliation against purchase orders. Human intervention makes the process prone to costly errors that directly impact the bottom line. With capabilities that intelligent automation offers, enterprises can leverage the technology to drive touchless processing.

Invoice processing, the key accounts payable process, is an arduous task. It takes organizations an average of 9.7 days to manually process an invoice.

Implementing an intelligent automation solution that converts emailed PDF invoices into e-invoices and extracts relevant data can enable organizations to achieve faster invoice processing. A bot powered by a combination of OCR and AI can scan emails and directly extract pertinent data from attached invoices (such as vendor details, invoice ID, payable amount, and invoice date). An OCR platform with deep learning capabilities can even recognize new invoice formats with little to no human intervention. With preset rules, AI-powered tools can add appropriate tax codes to invoices and even auto-approve recurring invoices within certain amounts and other preset criteria. These solutions can also sort invoices and prioritize them based on their due dates for timely processing. With end-to-end automation, enterprises can reduce invoice processing cost by an estimated 90 percent, from about \$30 for a manually processed invoice to just \$3.50 for a fully automated one<sup>10</sup>.

Intelligent automation can enable businesses to reduce invoice processing cost by 90 percent.

Intelligent automation solutions can also alleviate the strain of manual invoice reconciliation, helping enterprises further automate accounts payable. Manually matching an invoice with its corresponding purchase order opens doors for multiple problems like duplicate payments, frauds, and compliance violations, especially when invoices are received in large volume.

### Case in Point

A leasing company streamlined its accounts payable process using AI-enabled intelligent data capture technology and an automated workflow engine. The company was able to automatically upload approximately 30,000 invoices per month. The accuracy of the entire process improved by 99.8 percent with turnaround time reduced by 40 percent.

# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

## 2 Accounts Payable with IA Drives Touchless Processing (continued)

Studies indicate that, on average, 0.1 percent of invoices paid are duplicate payments, representing a potential annual loss of about \$100 million for a medium-sized organization<sup>11</sup>. AI-powered bots can automate invoice processing using algorithms to compare invoices to their corresponding POs and perform several checks such as flagging duplicate invoices and validating the supplier name, purchase order limit and contract payouts. If discrepancies are found, the bot can use intelligent automation to address exceptions or decide the next course of action based on predefined rules. Machine learning systems can take human feedback and adjust to improve performance in the next reconciliation cycle.

Enterprises can use AI-powered bots to automate invoice reconciliation and streamline payment processing.

Enterprises can use AI-based solutions for payment processing to capture early payment discounts, prevent late payment penalties and increase e-invoice rates. AI-powered bots can also track vendor statement submissions and send follow-up emails to vendors that have not submitted

invoices or credits. The system can be configured to automatically capture the transaction ID and map it against the invoice for faster three-way matching. Any variances identified can be escalated for human review, thereby streamlining payment reconciliation.



# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

## 3 Spend Analysis with IA Enables Faster, more Efficient Decision-making

Spend analysis forms the foundation of sourcing because it provides business leaders with data they can use to determine corporate spending and identify saving opportunities. APQC states that organizations with effective spend analysis perform better in the areas of cost effectiveness, cycle time and process efficiency<sup>12</sup>. However, studies indicate that organizations are able to manage just over 60 percent of their total spend, leaving nearly 40 percent of spend beyond their control<sup>13</sup>. This is primarily due to the inaccurate spend data aggregation and classification caused by disparate ERP and legacy systems that provide unstructured data that is difficult to analyze.

Using intelligent automation for spend analysis can give enterprises increased spend visibility, which can in turn help them increase cost savings, curb maverick and unmanaged spend, and reduce risk. By applying intelligent automation solutions powered by machine learning and artificial intelligence, businesses can automate cleansing of spend data, perform accurate categorizations, and integrate analytics across systems to drive improved insights (see Figure 2).

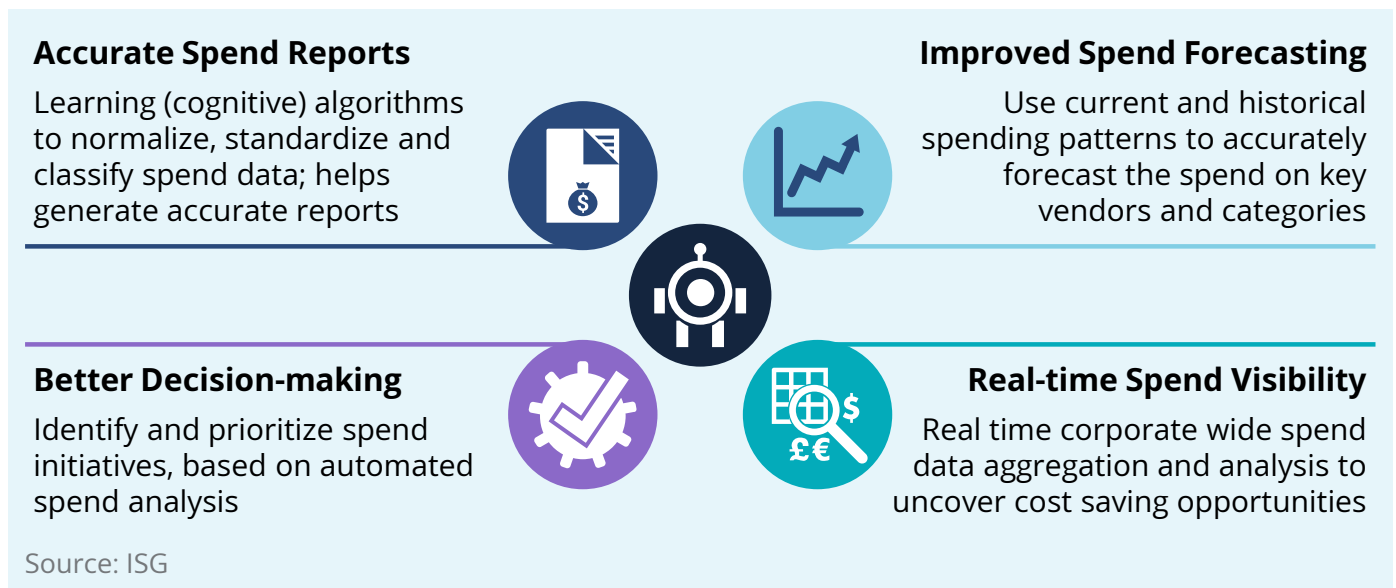


Figure 2 – How Intelligent Automation Helps Spend Analysis

AI-powered solutions can gather spend data from multiple sources and classify it into predefined procurement taxonomies. These solutions can be altered to classify the spend data into either industry codes (such as UNSPSC) or custom sourcing categories or both. With training, these solutions can also categorize spend into supplier breakouts for even deeper analysis. Once the data is in good shape, teams are able to integrate analytics tools to create spend analysis dashboards and reports that provide real-time visibility into enterprise-wide spending. These tools can be customized to create detailed reports on various categories of spend such as supplier, maverick and tail spend. With these insights, business leaders have an opportunity to quantify poor spending habits and uncover potential improvement areas. The advancement in intelligent automation technology is also opening doors for enterprises to perform predictive spend analysis and forecasting.

# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

## 4 Contract Negotiation and Management with IA Enables Faster Processing and Risk Reduction

Contract management, from negotiation and contracting to contract cataloguing, is another cumbersome process. Inefficient contracting practices can cause an average company to lose approximately 9 percent of its annual revenue<sup>14</sup>. With the average net profit margin for companies at about 10 percent, targeting the 9 percent revenue loss is an attractive avenue for enterprises to improve profitability<sup>15</sup>. Intelligent automation has the potential to deliver the needed profit improvement and also to enhance contracting process efficiency and accuracy.

On average, organizations spend 26 days to bring contract negotiations to a close<sup>16</sup>. By applying intelligent automation to contract negotiation, enterprises have a chance to reduce the time it takes for negotiators to fetch the vendor information that they need for driving conversations. Using solutions enabled by AI and NLP, businesses can automate the extraction of data cached in the lines of a contract, including dates and prices. These solutions can then use machine learning to detect and interpret patterns in data and provide insights that can be used to build negotiation strategy.

One example is the ICM Negotiate AI app from Icertis. It leverages AI to find all similar clauses in contracts from a company's entire repository to enable more consistent negotiations with a specific counterparty<sup>17</sup>. Businesses can also take advantage of conversational AI to create a negotiation bot that scans through email responses received from the supplier, applies sentiment analysis to identify emotion and drafts a suitable response.



# Intelligent Automation is the Next Frontier of Source-to-Pay (continued)

4

## Contract Negotiation and Management with IA Enables Faster Processing and Risk Reduction (continued)

Similarly, by applying intelligent automation, the process of contract creation and review can be automated and improved over time. Machine learning solutions can accelerate the contract drafting process by identifying patterns from existing contracts to generate standard templates. Machine learning can also recognize the relevant clauses that should be used for different types of contracts. For example, Smriti's AI-powered platform automatically identifies all the variables in contracts and surfaces them in a web-based form to expedite the entire contract drafting process<sup>18</sup>. Contracting teams can use automation bots powered by natural language processing to review contracts more rapidly and identify clauses, entities and obligations that can help mitigate risk and unexpected liabilities. These bots can also be configured to provide automatic recommendations if any clause is missing. This can help reduce substantial legal risk while saving time for the contract reviewer.

Bots powered by natural language processing can review contracts more rapidly and help mitigate risk and unexpected liabilities.

Intelligent automation can also bring transformation to the traditional way of contract cataloging and management, which is challenged by high volume and lack of standardization. AI-powered bots can quickly sort through many contracts and identify their types, allowing the contracts team to easily search and access related agreements. Because an AI system trains its algorithm on a set of data to recognize patterns, it allows teams

to manage contracts more effectively. These systems can also identify contracts that are approaching their expiration date and send alerts to the team for timely renewal.

### Case in Point

A leading company in the music industry moved from a manual business process management (BPM) model to AI/ML-enabled solutions for its critical contract management process. The shift to an intelligent automation technology solution resulted in 60 to 80 percent faster contract processing and reduced the cost of operations by 40 to 60 percent.

# Looking Ahead: Preparing for your Intelligent Automation Journey

Seldom has the source-to-pay function been perceived as a source of strategic insights for CFOs. However, it is now gaining increased interest as a strategic financial management discipline that can enhance decision support, business transparency, and auditability, as well as produce cost savings and improve risk management and business agility.

This attention at the CFO level reflects the evolution of S2P from being a tool for tactical efficiency and cost reduction to assuming a broader function that addresses other critical financial objectives. That said, many enterprises have to date achieved only limited benefits from S2P, largely due to a constrained view of the function. Therefore, when selecting, contracting and managing a S2P solution, enterprises need to steer clear of traditional approaches that include an arms-length approach to communication, limited collaboration and extended contracting cycles that focus too much on savings and poor definitions of “realized savings.” Successful sourcing principles are built on improved participation and utilization; better transparency into obligations, risks and trends; and a clearer focus on value metrics rather than suspicious “savings.”

Enterprises must focus on transparency, value maximization and risk mitigation when selecting a partner for S2P transformation.

Enterprises must rely on a business case that focuses on the full breadth and scale of the potential benefits that can be achieved through innovation and not just on cost alone. They also need to ensure that S2P analytics includes not only risk and performance, but also customer-focused analytics to enable S2P to better identify and satisfy the business objectives of internal stakeholders.

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