A Practical Guide to Autonomous Procurement
Building the Future You Want to See
Contents

Foreword from ISM ................................................. Page 03
Management Summary .......................................... Page 04
The Evolution of Procurement ................................ Page 06
What is Innovation? ................................................ Page 07
The Golden Triangle .............................................. Page 09
People ..................................................................... Page 10
Process .................................................................... Page 11
Technology ................................................................ Page 12
Autonomous Procurement Today, 2025, and 2030 .... Page 13
• Autonomous procurement is built to augment people,
  not replace them. ................................................ Page 15
Technologies Shaping the Future .............................. Page 18
Getting your Data Right: Build the Foundation .......... Page 19
Intelligent Automation (AI+RPA) ............................... Page 22
• RPA in Procurement Today .................................. Page 23
• RPA in 2025 and Beyond ...................................... Page 24
Digital Capture OCR .............................................. Page 27
• OCR in Procurement Today .................................. Page 28
• OCR in 2025 and Beyond ..................................... Page 28
Augmented Analytics ............................................. Page 32
• Augmented Analytics in Procurement Today .......... Page 33
• Augmented Analytics in 2025 and Beyond ............. Page 35
Artificial Intelligence (AI) ....................................... Page 39
• What is AI? ....................................................... Page 39
• AI in Procurement Today .................................... Page 40
• AI in 2025 and Beyond ....................................... Page 41
Digital Twin .......................................................... Page 45
• AI and Digital Twin: A Perfect Marriage ............... Page 46
Digital Adoption .................................................... Page 48
• Turn Data into Actionable Insights ....................... Page 49
Change Management ............................................ Page 49
Wrapping Up ........................................................ Page 53
About the Author .................................................... Page 55
For more than a century, Institute for Supply Management® (ISM) has impacted supply management and the purchasing profession through best-in-class education, certification, leadership development and research. Our mission is to advance the practice of supply management to drive value and competitive advantage, and contribute to a prosperous, sustainable world.

As the profession evolves, it is important to provide resources that discuss trends and advancements that can improve the way we work and the positive impact we can have on our respective organizations. That is why we are excited to work with organizations like JAGGAER and other industry experts to share their expertise on technology and the impact of digital transformation.

This book contains insight from experts in the forefront of procurement technology and innovation, providing best practices, use cases, pitfalls, real-life stories and practical steps to help you build a roadmap to achieve digital transformation, and ultimately, autonomous procurement.
When renowned computer scientist Alan Kay said this, he captured the spirit of innovation in a single sentence. It's something I've thought about day in and day out as I've focused on the journey towards autonomous procurement.

The term ‘autonomous procurement’ has received its fair share of both criticism and praise, although the criticism does tend to be closely aligned with my interpretation rather than not. It's the term itself that seems divisive.

No matter which camp you fall in, it’s impossible to deny the impact innovation can have on an industry, and that inevitably, change is coming regardless of any fancy name you may give it. Of course, there are those that herald the end of ‘human procurement’ with the advent of innovation. I obviously disagree, and as Klay said, if we want to know what the future will hold for procurement, then it’s up to all of us to create that future for ourselves.

But where do we start?

What technologies should we focus on and how?

How do we balance people, processes and technology to create a competitive advantage and a better future for procurement?

I will walk you through step-by-step in this guide.

In this practical guide, you will learn:

- The role of innovation in business
- How to find a balance in ‘The Golden Triangle’
- Steps to practically use the technologies that will shape the future
- How to tackle digital adoption and change management
- And much more

Be sure to download the checklists and guides included along the way for quick resources to help guide your digital transformation.
The Evolution of Procurement

Procurement has well and truly transformed since its humble beginnings.
From Ancient Egypt and Ancient Rome to the Industrial Railways, “Supplying Department” and then becoming more strategic through the World Wars, The Great Depression, and the introduction of the internet.

- **2325 BCE**
  - One of the earliest examples’ dates to the construction of The Great Pyramid of Giza.

- **600 BCE**
  - The Roman Empire is also to thank for two procurement innovations.

- **1800’s**
  - The Industrial Revolution brought railway networks, expanding supply chains.

- **1832**
  - Charles Babbage pushed for a “materials man” to select, purchase, and track mining operations.

- **1886**
  - Procurement function was officially created as the railroad’s “Supplying Department”.

- **1895**
  - Procurement had to navigate its first crisis’s due to The Great Depression and World Wars.

- **1980’s**
  - Computers, e-mail, and the internet began to transform and streamline procurement.

- **1990’s**
  - Strategic sourcing is born, with supply chain management taking center stage.

- **1995**
  - SciQuest (Now JAGGAER) was formed, the first eProcurement system soon followed.

- **Present Day**
  - AI, IOT, and blockchain are revolutionizing the procurement world Autonomous Procurement is right around the corner.

- **2000’s**
  - Risk management in the form of insurance, and contract categories which are still used today!
All of this change and innovative history now brings us to today, where we, as procurement professionals, have a choice to make:

Will we settle for being a tool for cost reduction, or do we want more?

Reducing costs will always be a piece of the procurement puzzle, but there is a real opportunity for us to own business strategy, not just cost.

In order to do that, and finally elevate procurement to the strategic business advisor role we covet, I think we have to fully embrace innovation and digital transformation.

What is Innovation?

Before getting started I think it’s important to define what innovation is, what it isn’t and why it matters.

The fact that you’re reading this right now tells me that you understand why it matters, so instead let’s answer, what is innovation? It’s an oft-asked question, and a much used buzzword, but one without a clear explanation. If you Google the term, over 1 million results will come up, several different takes on innovation is and most without any real substance.

I prefer a definition from the Global Innovation Institute that says

“**Innovation is doing something in a new or novel way that delivers more value and/or better experience to customers and markets in a way that’s profitable to the business**.”
Reggie Twigg, Director of Product Marketing at ABBYY said, “Most people confuse innovation with invention. They leave out a critical aspect, which is how it brings value to a business. I think true innovation is finding new ways to use technology to solve real world problems.”

He brings up a great point. Think about Uber or Lyft. They didn’t ‘invent’ taking a cab, and certainly didn’t invent any new technology.

Instead, they took the existing cab model, and applied technology like AI, GPS and visual maps to remove friction and stress from the riding experience.

The innovation there comes from Uber and Lyft creating a new “ride-share” category and changing the existing model, not from inventing a new technology. They saw a need and solved a problem, all while driving a successful business. That’s innovation.

Innovation is undoubtedly critical to the success of business, but it has to start with your business strategy.

In order to get the most value out of your innovation, you have to build a culture and a strategy that’s tailored for the job.

Over the next five to ten years digital transformation is going to be a necessity to stay competitive, and autonomous procurement is what that future looks like.
In my mind, any conversation about digital transformation or innovation has to start and end with what I call “The Golden Triangle.”

You may know it as the PPT (people, process, technology) Framework introduced in the 1960s by Harold Leavitt as a management framework.

I call it ‘The Golden Triangle’, because I visualize it as a triangle with three equal sides. I’ve also seen it as a three-legged chair, if one leg is too long the entire chair tips out of balance.

Others refer to it as a triple constraint, with the three pieces all moving in harmony otherwise the whole thing is thrown off.

No matter how you choose to visualize it, the idea is the same: find the perfect balance between people, processes and technology to ensure maximum efficiency, adoption and ROI.
Although in this framework there can’t necessarily be a ‘most important’ part, in my mind people will always be the most valuable. Unfortunately, they also rank as the most overlooked of the three.

New technology creates headlines and flashy value propositions. Processes may not be as flashy but certainly get much more attention than people.

However, what good is an expensive new technology without someone to operate it, or maintain it, or guide it? And the best process in the world can’t do much without someone who is sufficiently trained and willing to see it through.

This side of The Golden Triangle is all about proper training, guidance and support. People need to know exactly why a new technology was brought in, why it needs to be used a certain way (even if it might take a bit longer at first) and be involved in continued discussions on improvements.

Savita Mace, Visiting Lecturer at Sussex University said it best,

“People often throw money at technology and expect magic. Instead think of The Golden Triangle, and be sure to align technology to your processes and people”.

People should always be the foundation of digital transformation and they are the heart of what my vision of autonomous procurement is.
A process is a set of steps or actions that need to be taken to achieve a specific purpose or goal. While it sounds relatively straightforward, it’s often something I see neglected.

A good process should consider your larger business goals, technology ecosystem and all existing processes.

When that holistic approach isn’t taken, I’ll often see a lack of digital adoption with many valuable features left unused, or overlapping processes causing duplicate work and ultimately employee burnout.

Every time you’re evaluating or implementing a new technology, the existing process needs to be looked at and changed. Otherwise, you’ll be wasting a lot of money on doing something the same old way.

Sometimes you’ll have to get rid of solutions you currently use because a new one will overlap and that’s okay.

It might take some trial and error but if you take a holistic approach to your processes and technology, you’ll get better employee buy-in, discover more efficient processes and likely save more money in the long run.

One of my favorite sayings is

“If you add together a new technology and an old process what do you get? A very expensive old process”.

Process
This is the ‘shiny new toy’ that steals all the attention.

It’s important to keep in mind your organization’s long-term strategy so that you don’t buy a quick fix that will become obsolete even quicker.

I also think it’s worth pointing out though that technology on its own won’t solve your problems.

I’ve said it before “A hammer can’t build much of anything without someone to swing it.”

You need smart, capable people and the right processes in place, otherwise nothing will realistically change, aside from your wallet getting lighter.

We’ll dive into specific technologies and steps later, so I won’t spend more time here.
There are three terms that are often tossed around in discussions about autonomous procurement. Before moving forward, I think it’s important to define each in order to have a clear distinction on what you’re trying to achieve as an organization. Understanding the nuances can help you set clear goals and expectations. Understanding the nuances in each can help you set clear goals and expectations.

**Digitization**  
Conversion (Data)

**Digitalization**  
Adaption (Process)

**Digital Transformation**  
Creation (Business)

**Digitization**  
This is most often described as converting information to a digital format. So, instead of using paper-based processes you now use some sort of digital repository, whether that be Excel, a CRM, an ERP, P2P Suite, or a number of other options for storing your data.
Digital Transformation
This is more than automation. This is where The Golden Triangle comes into play. Balancing people, processes and technology to make a big systematic change in your organization. A digital transformation means overhauling all existing processes and platforms, while upskilling people to be able to completely change how business is done. A full digital transformation goes beyond minor efficiency increases, this is all about driving real and lasting value from top to bottom.

Autonomous procurement is the pinnacle of digital transformation in procurement.

People have different definitions for it, but I like to think of it as a platform with embedded intelligence throughout. As a system, it will continue to build on those capabilities to automate the full source to pay process.

The main idea is to automate all repetitive and 'low-level' tasks while also providing support to procurement professionals in strategic tasks through advanced analytics and AI-driven predictions or recommendations.

Essentially, this means no more mundane paperwork or performing repetitive tasks, and more time spent on strategy, supplier negotiations and relationships or other value-adding activities.

It’s like flying a plane on autopilot. The pilot still needs to be there, but they’re able to think ahead more and do the job with less fatigue.

Digitalization
This is taking the next step. With digitization, Excel might fulfill those requirements, but with digitalization it’s about getting your data to work for you. For this you’ll need stronger capabilities often found in something like a P2P Suite. Think eInvoicing or automated supplier management. It’s about automating routine tasks and really leveraging deeper capabilities rather than simply storing data online.
Automated procurement is built to augment people, not replace them.

We want to build a future where procurement and technology have a perfect harmony, because that’s the only way to become more strategic.

There are four main steps in the journey towards autonomous procurement.

**Automated Procurement**

“The first level of digital procurement is automation, which is built on assistive intelligence — a type of system that can automate repetitive and standardized tasks performed by humans. This first level of digital procurement is capable of automating simple tasks using RPA (robotic process automation) that can be customized to the organizational process and reconfigured over time as processes, or data streams, evolve.”

This level is where the majority of organizations are at today. The main goal is digitizing processes and then beginning very low-level digitalization and automation.
Augmented Procurement
“The second level of digital procurement is augmented intelligence — defined as a system that can learn from human feedback and provide better insights and recommendations over time on one or more specific tasks. The tasks are typically specific, and the capability limited, but if the task is one that humans have difficulty with, it’s still immensely valuable. Whereas an automation solution will guide a user through a process, an augmented solution will guide a user to a decision. This guidance will be based upon encoded historical knowledge and best practices.”

Here begins further digitalization, leaning into technical capabilities, using low-level ML and rules-based processes to further automate tasks and augment people.

Intelligent Procurement
This is where technology is at today in 2021. Intelligent procurement is built on cognitive intelligence, which is a system that learns from human interaction, and then can formulate recommendations and behaviors over time to mirror what a human expert would do. The key here is the system’s ability to learn from the past and react in the future without needing a human guide.

Instead of being guided to a decision and best practice as with the augmented phase, intelligent procurement systems will be able to learn from past behavior over time, analyze historical and current data, and make a decision based on that data. Eventually, instead of needing a human to make the change, the system will automatically implement this change and flag administrators to alert them of the decision.

This is the foundation of JAGGAER Advise, a powerful recommendation engine built using prescriptive analytics, ML and eventual cognitive capabilities.
Autonomous Procurement

The pinnacle of procurement's future technologies for 2025 and beyond. “The fourth level of digital procurement uses autonomous intelligence. An autonomous intelligence system can not only learn from humans and adapt its behavior using cognitive abilities but also learn and adapt to new tasks and situations like an expert would without having to kick up an exception for human review.”

While the machines may not need humans in order to learn, there will always be room for human guidance and strategic operation, meaning that procurement jobs are not at risk.

Autonomous procurement is more than just automation. It’s a mindset shift, and a shift in what the future of procurement will be. Some functions might be better suited to a machine, while others better suited for people.

At the end of the day though a person’s insight will always be at the very center of my vision of autonomous procurement.

Understanding these steps is crucial in order to move forward. Technology may be in the third, cognitive stage, but most organizations are still in the initial automation and digitizing stage.

You can’t skip steps and hope to move phases overnight. It takes an investment of time, money and patience in order to ensure data, implementations, processes and people are all in place to move through this journey effectively.

Long term, this development will help to attract top talent to procurement. The new generation expects to work in a motivational and dynamic environment that is powered by embedded intelligence across the value chain.
There are multiple technologies that build the path to autonomous procurement. Technologies Shaping the Future

Machine learning, chatbots, blockchain, IoT, 5G networks, and many more will all play important roles in shaping an autonomous system. Many of these technologies will build on each other in order to make more sophisticated solutions, such as a chatbot leveraging natural language processing (NLP), or RPA and AI combining to make intelligent, cognitive automation.

There are four main solutions that need to be addressed, the building blocks of an autonomous system. That's why in this guide we'll be focusing on how to implement and use RPA, OCR, augmented analytics, and AI to create business value, speed up ROI, and begin your journey towards autonomous procurement.
Imagine autonomous procurement as a house that we’re building.

The Golden Triangle is the frame of the house. RPA, Augmented Analytics, OCR and AI are the rooms and finishing touches. That leaves data as the foundation.

The old saying that you can’t build a house on a foundation of sand? That applies here too. Your foundation (data) must be rock solid if the “autonomous procurement house” is going to stand.

Marcelo Loureiro, CPO at Alkermes said “it is important to build the right foundations for the technology to do its magic. Like building a house you need to start with good bones or the rest can’t work”.

Getting your Data Right: Build the Foundation
So many times digital projects fail, or innovations are written off, because people want to skip steps. People want instant gratification and for technology to work perfectly, immediately; but they don’t want to spend the time making sure the data is right.

Even the most advanced AI platforms in the world need a large degree of data in order to work, and this takes time.

It’s the adage “garbage in, garbage out”. You can’t expect technology to function correctly without first ensuring that what you’re putting in and the guardrails you have in place are strong.

I liken it to a professional athlete. Pick any sport and look at who is considered ‘the best’. The Michael Jordans, Serena Williams and Lionel Messi’s of the world didn’t get that way overnight. It took years of practice and dedication, building muscle memory to become the best at what they do.

Technology is the same way - and it underscores the importance of starting now - not in 5 years.

AI or machine learning solutions learn over time as they process data, which I think of as building “digital muscle memory.”

After enough time, much like Michael Jordan shooting a free throw or Serena acing a serve, the solutions will have enough muscle memory to recognize your preferences, pick up on patterns, execute tasks and even make strategic recommendations.

I’ve heard more times than I can count “I’ll invest in technology when it’s more mainstream or advanced.”

Well, waiting that long can put you months or years behind the competition because it takes time to get your data right. I’m a firm believer in the saying, “Anything worth doing is worth doing right.”

Build your data foundation today and start training your solutions to build that digital muscle memory and it’ll pay off in the long run.
Intelligent Automation (AI+RPA)

The first technology any procurement professional worth their salt should know about is RPA.

Yes, I know some of you may be rolling your eyes. “RPA has been around for decades, why is it in this guide?” I’ll get to that in a bit, but first let’s lay the groundwork of what RPA was and is today.

Robotic Process Automation (RPA) is the foundation of intelligent automation and an important building block to autonomous procurement.

RPA is a technology that combines business rules and logic to mimic a human doing their job with the end goal of automating routine tasks.

I tend to think of it in a much simpler way. Do you remember when computers started to autofill forms or passwords for you?

That’s RPA.

A very basic example, but the technology learned by recognizing what characters you were typing, saving it in a database, and uses a rule so that when you’re on a certain site or when faced with a form, it does it for you, and the time you save really does add up.

It’s designed to take on low-level, repetitive tasks to make your life easier and more efficient. Not only that, but with things like data entry and analysis it cuts out human mistakes which we’re all prone to sometimes.

For those who are unfamiliar with RPA’s checkered history you may be wondering why this hasn’t taken the world by storm already. An army of tiny robots marching in to do all the work you hate sounds perfect, right? No more data entry, running reports, filling out supplier information, simple RFPs (you get the idea).

Unfortunately for RPA, it was hastily introduced, filled with a lot of overpromising and under delivering. At first RPA was mostly script based and extremely rigid. This led to a reliance on high-level developers to make low-level automation.

The result was more frustration than automation. With the ever-changing business world and applications demanding increased script changes, there simply wasn’t enough coders and resources to keep up.
RPA in Procurement Today
Technology has finally caught up to expectations.

According to Shrikant Deo, Associate Director and Lead – Product Management at EdgeVerve “The advantage of RPA is that it does not need scripts or API. Instead it utilizes UI emulation to work on top of existing applications, thereby avoiding costly and time-consuming IT Projects”.

While some may claim that RPA is on the downswing, it’s in fact the inverse, with Gartner predicting that the market for RPA will grow by double-digit rates through 2024.

RPA isn’t just simple cost reduction now either.

Today RPA can do a lot.

It’s a foundational piece to larger digital transformation. Sure, it automates tasks, frees up people’s time and cuts down on errors, but it’s also allowing teams to rethink their roles and change entire business processes.

Source: EdgeVerve
RPA in 2025 and Beyond
The future of RPA lies in a combination of technologies.

By itself, while it does have plenty of use cases, it’s limited to simple rule-based automation. But by combining RPA and ML/AI you get intelligent automation. This is where systems start becoming autonomous, with cognitive capabilities mixed with automation.

By 2025 I expect that intelligent and cognitive automation will start to become mainstream. The system won’t just automate routine tasks, it will improve them. Plus, by combining intelligent automation with things like prescriptive and predictive analytics or AI, the sky is the limit.

Automation will be just the first layer. The system will then take all of the data from the entire end-to-end spectrum to make recommendations, suggestions and empower us to work more strategically.

Tips, Tricks and RPA Best Practices
This wouldn’t be much of a practical guide if I didn’t give you any of my tips, tricks and best practices.

But I think it’s more important to start off with what NOT to do. Knowing what to avoid can go a long way to success.

Mistakes and Pitfalls

- Don’t fall into the trap of thinking that RPA is outdated or on the downswing
  - The common belief is that RPA is outdated or doesn’t work. That’s not true and hasn’t been for several years now. It’s more advanced, and important to digital transformation, than ever before.

- Don’t believe that RPA is just scripting
  - While this may have been the case 20 years ago, it isn’t now. RPA is based on screen or UI emulation, which mimics the system-user interactions. Today, the technology has evolved to become much more robust and reliable with advanced exception handling and self-healing capabilities.

- Don’t put RPA in a ‘cost reduction’ box
  - We all tend to put things in boxes. What I mean is we label things on first impressions, and this skews the way we think about it every time after that. Yes, RPA has significant potential for cost reduction, but it’s so much more. It helps to change processes, upskills teams, and accelerates digital transformation.
Steps to a Successful Implementation

Now that we have the negative out of the way, let’s look at some tips to implement RPA from scratch.

As RPA has continued to mature and become mainstream, implementations have also become easier. With that being said, there are a few main steps to keep in mind when implementing RPA in your business.

1. Identify your Use Cases
Most organizations are going to implement RPA for the same goal, to automate mundane and repetitive tasks. In order to do that it can take a bit of trial and error. You need to find and test what works for your business, because everyone’s needs are unique.

Come into it with a few simple use cases and ideas to test and find what works best for your company. RPA isn’t a magic pill, nothing is. You need to test different use cases to see what will realistically add value to your business.

This may involve relooking at processes or restructuring certain teams but eventually you’ll find the right mix of automation to suit your needs.

2. Create an RPA Center of Excellence
For those not familiar with a center of excellence (CoE) type of structure, it’s essentially an internal knowledge bank that will help develop best practice, use cases, and continuous optimizations.

Once you’ve established your simple use cases to start with, you then need to build out an CoE and someone to act on it. This can consist of a small team – or person – and should be devoted to optimizing your RPA.

You don’t necessarily need a ‘technology expert’ here, just someone willing to look at the data, see what’s working, what’s not, and identify new potential use cases for automation.

3. Set up Long-Term Governance
The CoE is a good initial step but for any good program to succeed you need to take a long-term approach.

RPA bots need a robust structure make sure they’re efficient, agile and streamlined.
You need to figure out who is going to own what projects, who is going to report on performance and what KPIs are you aiming for.

Once you have that figured out, define the long-term roadmap for what you want to achieve from RPA and how you’re going to get there. Set your guardrails and establish specifics for your teams to aim for.

**Important Metrics to Track**

To help with setting up your own KPIs here’s a few to get started:

**Return on Investment (ROI):**

There isn’t a single discussion had with top leadership about implementing new technologies or strategies where ROI isn’t mentioned. Executives primarily care about two things: revenue and growth, period.

Luckily, RPA has proven results of positive ROI. Nonetheless, you should look past the initial ‘low-hanging fruit’ and cost reduction to find what value RPA is adding.

Aside from reducing repetitive tasks and speeding up processes RPA also helps enhance decision-making, upskills personnel, and can accelerate further digital transformation further down your roadmap.

All of this should be considered when measuring and reporting on your ROI.

**Bot Utilization:**

Another important metric to keep an eye on is bot utilization. One of the top features of RPA is that it can perform a job 24/7, with higher accuracy and productivity than a human. Because of that work rate bots need to be continuously assessed to measure productivity and performance.

**Exception Rate:**

Like I said, RPA isn’t magic. There are going to be cases where it can’t do the job without human intervention.

This may be because of a kick-out rule or maybe it’s faced with an entirely new data point, but the result will be that a person will have to intervene.

Over time these exceptions will happen less and less, but it’s an important metrics to track and report on to top leadership overtime as it trends downward.

Our practical checklist to RPA breaks things down in a detailed step-by-step guide, along with best practices and what to avoid.

---

Get your free copy here!

Download RPA Checklist
OCR is probably the most mature technology in this guide, but it’s also the one that most people have never heard of. Or at least don’t know the name of.

Optical Character Recognition (OCR) is the electronic conversion of text to machine-encoded text. This can be done with images, PDFs, handwritten notes, and more.

In simpler terms, if you’ve applied for a new job in the past several years, odds are you were asked to submit a résumé.

When you uploaded it, depending on the company’s system and process, it auto filled large sections of the application based on what was included in your résumé. That’s basic OCR.
OCR in Procurement Today
For procurement, this is particularly useful with something like invoice processing, where a surprising number of suppliers still insist on using paper or pdf invoices. Processing paper invoices isn’t the most stimulating work.

It’s time consuming, repetitive, and often error-prone causing things to fall through the cracks which leads to other problems (late payments, contract breaches, etc.).

That’s why JAGGAER created Digital Capture, using the latest in OCR technology to alleviate this issue. Instead of manually processing thousands of paper invoices you can simply scan them in.

Over time the system will learn layouts, fonts, languages, currencies, all leading up to near 100% accuracy, drastically cutting down on data entry and AP time.

As I mentioned, OCR is a very mature technology, but that doesn’t mean there won’t be changes coming in the next several years.

OCR in 2025 and Beyond
OCR is what today looks like, and Digital Capture is a step further in the right direction, but there’s more value to be had.

2025 (or sooner) will be the year of intelligent document processing (IDP).

Many people confuse OCR and IDP, thinking they’re one and the same. OCR is a lot like basic RPA, in that it needs specific direction to perform the task.

Intelligent document processing is combining that capability with machine learning, RPA and AI to create a cognitive system that recognizes different patterns, learns from historical data, and then makes intelligent decisions based on what type of content it’s processing. IDP is more of a process and technology combination. Centered around rethinking how document processing was done before and finding a way to create more value by leveraging smarter technology.
Tips, Tricks and OCR
Best Practices
The advantage of OCR is that it’s more mature than the other technologies in this guide.

It already has a long track record, with proven results to back it up. However, OCR needs to be looked at in the larger context of digital transformation and all the elements it touches.

Mistakes and Pitfalls
- Don’t think that OCR is synonymous with IDP
  - In the same way that RPA isn’t the same as intelligent automation, neither is OCR the same as IDP. It’s a fundamental piece but IDP is more of a process built around OCR that leverages the best of AI and RPA to streamline document intake and processing.

- Don’t think that OCR should be siloed
  - What I mean is that OCR can have a deep impact on your organization. It doesn’t just have to stop at your accounts payable and invoicing. Especially when you unlock IDP, there are a number of areas that could be streamlined and processes that need to be adjusted. Don’t make the mistake of only focusing on one.

- Don’t think that OCR is “too mature to drive innovation now”
  - OCR is mature but that doesn’t make it less critical to innovation, and it also doesn’t mean that implementation will always go smoothly. OCR is foundational to digital transformation due to the time and money savings, but also in its ability to bring perspective to existing and new processes. Every organization is different and will use it differently. You need to find the right mix of OCR automation to fit your needs.
**Steps to a Successful Implementation**

1. **Identify your Use Cases**
I may sound like a broken record but this step is crucial. You need to figure out where OCR makes the most sense for your business.

Consider your existing processes, think about how your team is structured. Accounts payable and invoicing is a natural first step for most, but there are other opportunities to add value once you get started. (Think HR, legal, CLM etc.)

2. **Set your Benchmarks**
I’ll use invoicing as an example here because Digital Capture is fresh. Before you actually implement OCR, take some time to evaluate performance.

Ask these questions:
- How long does it take on average to process an invoice?
- How many invoices do we typically receive per month?
- How much does manual processing cost (in late fees, errors, and also the salary of who’s processing)?
- How many errors or compliance issues do we run into per month?

Once you have numbers on all of these you have something to measure against when you implement OCR.

3. **Implement, Test and Expand**
You’ll probably want to find a partner to help with the technology and implementation, but either way the process is the same.

Implement OCR in your established use cases, start testing and measuring to see what’s working, what’s not, and where your opportunities are, and then start expanding to take advantage of them.

4. **Re-Evaluate your Processes**
Just like with RPA, OCR opens the door to a great deal of automation. This means that people and teams are going to more spare time.

Maybe this means giving more manpower to another department or process, maybe this means putting someone in charge of measurement, tracking and reporting on OCR, or maybe with the lack of ‘busy work’ someone will find a new strategic value opportunity.

The bottom line is that your processes are going to change as a result, and maybe team structure will too. Now you’ll finally have the bandwidth to take on some strategic projects and everyone’s job will become a lot more rewarding.
Important Metrics to Track
Unlike some of the other technologies, the metrics to keep any eye on will be relatively standard for most organizations.

Risk Mitigation
OCR has the potential to cut out a lot of risks involved with documents processing. Human error with large loads of data entry happens much more than people may think and can lead to a large degree of risk.

Cutting out that manual data entry allows for better accuracy and compliance.

Efficiency and Cost
Manual invoice processing can take up to 25 days. With OCR that’s cut drastically to only three days or less, depending on the company and invoice.

Not only does this save a great deal of time but it saves money as well, with manual processing costing upwards of $15-$30 for a single invoice.

Set your benchmarks for both time and money costs and measure the improvements after implementing OCR.

Exception Rate
Like with RPA, or most other technologies, there will be a learning curve. The solution needs time to pick up on new patterns, layouts and fonts. Keep an eye on these exceptions to ensure they are going down over time else you aren’t getting the full value of the solution.

Our practical checklist to OCR breaks things down in a detailed step-by-step guide, along with best practices and what to avoid.

Get your free copy here!
Download OCR Checklist
Augmented Analytics

While we’ve talked about RPA being one of the older technologies in this guide, that history wasn’t quite as smooth as many would have liked up until now. We’ve also talked about OCR, arguably the most mature technology here, only the name itself wasn’t quite as well known.

Now we’ve arrived at augmented analytics, what many consider to be the most abstract topic we’ll cover. The term augmented analytics comes from Gartner in 2017 who describe it as “the use of enabling technologies such as machine learning and AI to assist with data preparation, insight generation and insight explanation to augment how people explore and analyze data in analytics and BI platforms.”

It’s considered abstract because most people hear “augmented analytics” and expect a solution they can buy like they would an eProcurement module.

Augmented analytics is more of an idea than a tangible technology. It’s combining your existing data with technologies like machine learning (ML) or AI to automate and enhance the visualization, analysis and interpretation.

The key lies in the name ‘augmented’.

Sure, it augments your data, but I think the real value comes from augmenting people. Enabling them to make quicker, smarter and better-informed decisions.

The end goal is to make data more accessible and actionable for everyone as opposed to needing a data scientist with years of training.

“To move into the future procurement requires rethinking data to be an enterprise asset and develop a collaborative environment for a unified analytics architecture”.

- Nimish Patel, CPO, Rutgers University
Augmented Analytics in Procurement Today

Augmented analytics is already helping people in procurement immensely.

Ben Lower, a Platform Leader at Tableau said, “to understand augmented analytics, you have to understand that people are at the center. People are already using data to drive decisions, augmented analytics just uses technology like AI and NLP to make that process faster, smarter and easier.”

What Does Augmented Analytics Mean for Procurement?

Self-Service
- Enable customers and partners to build their own dashboards
- Quick data preparations

Conversational
- Conversational Queries
- Enhanced access via the Smart Assistant (Chatbot)

Augmented
- Predictive Analytics
- Intelligent Recommendations and Explanations
- Benchmarking

Everywhere
- Automated Data Discovery
- Improved access from everywhere in JAGGAER ONE

Actionable
- Improved Creation and Access actions
- Connected to the user processes
By using natural language processing and augmented analytics, without needing to be a trained analyst, you can ask the system a question, and it will run the calculation for you, show you a visualization of the data.

Instead of needing to wait for an analyst to do that for you, it’s done in less than a minute, drastically speeding up decision-making.

Augmented analytics platforms also specialize in two types of data analytics, predictive and prescriptive.

### Journey Towards Intelligent/Analytical Procurement

<table>
<thead>
<tr>
<th>Classification</th>
<th>Stochastic Processing</th>
<th>Statistical Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>- AI/ML, Automation</td>
<td>- AI/ML, Automation</td>
<td>- Trending &amp; Modeling</td>
</tr>
<tr>
<td>- Process Optimization</td>
<td>- Process Optimization</td>
<td>- Deterministic Planning</td>
</tr>
<tr>
<td>- Recommendadtion Engine</td>
<td>- Recommendadtion Engine</td>
<td></td>
</tr>
<tr>
<td>Prescriptive (Guide)</td>
<td>Predictive (Forecast)</td>
<td>Descriptive (History)</td>
</tr>
<tr>
<td>What is the optimal solution? How do I synthesize the available data to make an educated decision?</td>
<td>What could happen in the future – “If..., Then...”</td>
<td>What happened in the past – historical prescriptive of what is going on in your enterprise</td>
</tr>
<tr>
<td>Data (Quality)</td>
<td>Data Acquisition</td>
<td></td>
</tr>
<tr>
<td>Core set of what an enterprise has about a category, supplier and/or business unit</td>
<td>Structured &amp; Unstructured Data Mart &amp; ETL/ELT</td>
<td></td>
</tr>
</tbody>
</table>

Predictive analytics using statistical and historical models to predict the outcome of an event. A good example is JAGGAER's On-Time Delivery Predictor, which can predict with up to 95% accuracy whether a shipment will arrive on time before the order is even placed.

Prescriptive analytics takes that a step further.

You know that your order will likely be late or that some sort of disruption is likely to occur, but what do you do about it?

This advanced form of analytics will give you that answer (or several options) all based on AI and statistical models, allowing you to make data-driven decisions that are fast and will help bring value to your business.
Augmented Analytics in 2025 and Beyond

The future of augmented analytics should excite anyone who works in the business world.

As technology continues to develop these predictions and prescriptions will get even smarter.

Soon, we won’t even have to ask the questions, the system will be running in the background and alert us of possible changes that could save money, time or avoid disruptions.

The system could detect that the price of oil is likely to increase in the coming months, and then urge you to renegotiate with these three suppliers, or maybe do a certain change to your supply chain to combat rising costs.

Best of all is that data and statistics will be available for everyone to interpret and use. You won’t need to have a master’s degree in data science anymore to make actionable data-driven decisions.

That’s autonomous procurement at work and it couldn’t get there without augmented analytics.

Tips, Tricks and Augmented Analytics Best Practice

There are plenty of best practices and tips available to help you drive more value with analytics. But, as I’m sure you’ve picked up on by now, I like to highlight what NOT to do first.
Mistakes and Pitfalls

• Don’t think that technology will run your business for you, or solve your “unsolvable” problems automatically
  ◦ The main concept of autonomous procurement is that people are still very much at the center. Technology won’t run your business for you and can’t solve your problems for you alone. The value lies in practice and learning how to use technology to solve business problems, and it doesn’t happen overnight.

• Don’t think that all data is immediately ready to be analyzed or has hidden value
  ◦ This goes back to when I talked about building your data foundation and digital muscle memory. All data, especially when raw, will not be able to be analyzed. You need relevant and clean data for the system to work. Also, all data might not have a ‘hidden pattern’ that will be valuable to business. Be consistent and you’ll find your hidden gem eventually.

• Don’t try and do too much at once
  ◦ Not every hit has to be a homerun. Start small and tackle smaller, more digestible problems. Work up to the big ones and you’ll have more success (and experience) with the data.

Steps to a Successful Implementation

1. Get your Data Right
   This is the first step for anything, but especially with augmented analytics. Take the time to get this part right and you’ll have a much smoother (and faster) ride to ROI.

2. Establish your Business Problem
   Like with all of these technologies, you can’t expect to implement them for the sake of digital transformation. Figure out what problem you’re trying to solve and what your use cases are first.

3. Work Backwards
   After you’ve established what your problem is, work backwards from there.
   
   So many times, people start with technology first and try to force it onto a situation that it really isn’t a fit for.
   
   Instead start with the problem and figure out how technology might help you solve that problem. Once you have that you can find the right solutions to help you manipulate and visualize your data in the right way.

4. Practice Makes Perfect
   Yes, the purpose of augmented analytics is to make your data actionable to everyone.
   
   However, you still need to be comfortable looking at data and making a decision.
Prescriptive analytics exist but they’re not quite on an autonomous procurement scale yet. You need to practice looking at data and using the charts and recommendations the system gives you.

Over time you’ll be able to spot patterns and use your unique insight to help guide these decisions to fit your business.

**Important Metrics to Track**

Ben Lower advised that these will look different for everyone.

The key is to first identify what you want to change. Then decide how to quantify the result and apply technology in a way that supports people in solving that problem.

A couple of things to keep a close eye on are:

**User Adoption**

This is the number one metric to track with augmented analytics.

The whole idea is to augment people to work smarter and faster. If they aren’t using the system and getting value from the capabilities, then there is a big disconnect.

Digital adoption can derail a project quickly, so it’s important to monitor your adoption rate and take action where necessary.

There’s a number of useful ways to help measure adoption including our new solution, JAGGAER Adopt.

**Number of Decisions Made**

The more data-driven decisions you and your team are making the better. Data helps provide a real basis to driving value and makes it a lot easier to report on.

Keep an eye on how many decisions you’re actually able to make and you’ll get a good idea of both adoption and ROI.

**Success with Meeting Other Business KPIs**

This one may sound a bit odd, but you need to measure how well augmented analytics is allowing you to meet your other business KPIs.

You should have metrics in place to see if you’re effectively solving your business problems and making progress, and it’s important to see that progress unfold in order to report to the C-Suite and other senior leaders.

Our practical checklist to augmented analytics breaks things down in a detailed step-by-step guide, along with best practices and what to avoid. Get your free copy of our augmented analytics checklist here!
Artificial Intelligence (AI)

AI is one of the most misunderstood technologies that exists.

It’s a polarizing topic.

One side claims that robots are taking over, and the Terminator movies are documentaries while the other side thinks that artificial intelligence is the greatest invention since sliced bread.

Both of those are exaggerations, but you get the point.

The reality of AI lies somewhere in the middle; there’s a lot more gray than black and white. It’s important to understand what AI is and what AI isn’t before we can dive into practical applications and how to implement it.

What is AI?

AI is broadly understood to mean technology that is designed to make cognitive decisions and perform tasks on par with, or better than, a human. There are several theories on how many stages of AI there are, but for our purposes I’ll narrow it down into two main groups:

Weak AI

Also known as narrow AI, weak AI is the only form of artificial intelligence that’s been created to this point. It’s called narrow AI because while it does have cognitive abilities, it is only designed to do a specific set of tasks. And in many cases, narrow AI is as good or better - and certainly faster and less error prone - than a human at those specific tasks.
AI needs a large amount of data to function properly and a fair amount of time to learn behavior and start making recommendations.

Siri, Alexa, and your email text recommendation are all general examples of weak AI. Really good at picking up on patterns, executing specific tasks and finding optimizations, but they’re only good at a narrow set of tasks.

Strong AI
Strong AI has cognitive ability on par with a human, meaning it’s able to think for itself. It can learn and execute just as many tasks as a person can and can do it at greater speed and with fewer errors.

There haven’t been any remotely successful attempts at developing strong AI to this point, so we can safely assume that it will be many years before it’s a possibility. Tony Stark’s J.A.R.V.I.S. from the Marvel movies and comics is an example of what a fully cognitive strong AI would be.

**AI in Procurement Today**
Although the name is weak AI, its capabilities are anything but.

AI encompasses technology and processes like natural language processing (NLP), machine learning (ML), deep learning (DL), neural networks and statistical models for trend analysis, anomaly detection, predictive analytics and more.

---

**Artificial Intelligence vs Machine Learning vs Deep Learning**

- **Artificial Intelligence**
  A technique which enable machines to mimic human behaviour

- **Machine Learning**
  Subset of AI technique which use statistical methods to enable machines to improve with experience

- **Deep Learning**
  Subset of ML which make the computation of multi-layer neural network feasible
That’s a long-winded way of saying that AI is intelligent, complex and can solve a lot of procurement problems if used correctly.

AI applications today are still considered “niche” in that there isn’t a vendor that can support the full end-to-end process that autonomous procurement would require.

However, AI can be used in a wide variety of situations today such as in augmented analytics and data visualization or prediction. There’s intelligent automation by applying AI to RPA to boost the existing automation capabilities beyond mimicking tasks to learning and improving basic tasks.

JAGGAER and EdgeVerve have teamed up to offer AI-powered contract management, in which risk analysis, clause authoring and the entire CLM process is strengthened by AI capabilities.

**AI in 2025 and Beyond**

The future of AI is constantly evolving and changing.

By the time I’m done writing this book it’s likely that there will have been a development in what AI can do or what it can be.

That’s not to say that strong AI is close to being developed though.

The future of AI, at least in the next several years, is that it will continue to be integrated into all of the solutions I’ve mentioned above, with ever improving cognitive capabilities and applied to the entire spectrum of procurement.

In other words, the system will be able to think for itself to a degree, learn over time, and improve all of the day-to-day routine of procurement processes.

The development of AI is what will open the door for all of us who work in procurement to think and act strategically while having the tools to empower us along the way.
Tips, Tricks and AI
Best Practices
Since AI is still such a developing technology there several misconceptions around it, but at the same time there are clear opportunities to implement it and drive value today.

Mistakes and Pitfalls
AI is a polarizing topic, shrouded in misinformation so allow me to play the myth buster.

- Don’t think that AI can guarantee 100% accuracy
  - To put it simply, no technology can guarantee perfection. It can get close, but nothing will ever be 100%. That’s why having human input combined with AI is the future.

- Don’t think that AI is “one-size-fits-all”
  - No software platform can address all use cases across verticals and business domains without customization. Every company has their own unique set of business requirements that need to be addressed differently.

- Don’t think that AI is “buy it and forget it”
  - AI systems need continuous learning from human feedback, clean data training, pattern recognition and adjustment, and a continuous review mechanism to ensure that the data hasn’t changed significantly, and the system is meeting expectations.

- Don’t think that AI will take your job
  - Your job may change, and you may have to learn new skills, but autonomous procurement and AI isn’t designed to function without people. Instead, reimagine your job and prepare to work more strategically instead of tactically.

“Results and solutions won’t happen at the push of a button. AI is not a quick win! It takes time and that’s why it’s so important to have a good foundation”.
- Allen Kong, Director of the Center of Excellence, Rutgers University
Steps to a Successful Implementation

This will largely depend on your business and how you intend to use AI, but broadly speaking here’s a few steps to ensure the implementation goes smoothly:

1. **Identify the Top Use Cases**
   Understand what AI can and can’t do for your organization. Much like with augmented analytics, you should figure out what the problem you want to solve is, and then figure out how AI can help you solve it.

   Prioritize the use cases into a transformation roadmap that covers both a long-term vision as well as quick wins. Thinking both long and short term is the key to balancing ROI and revenue expectations while also keeping an eye on the eventual goal of your digital transformation.

2. **Get your Data Right**
   I might sound like a broken record, but I keep repeating it because it’s that important. Get your data right early, and everything else will start to fall into place. Identify and understand the data you currently have and the type you need to implement your AI case. Finding the right partner can help you identify exactly what types of data you need to be successful for your unique case.

3. **Buy vs. Build**
   Implementing AI requires a completely new set of capabilities and skills which are in short supply.

   You have to decide if you want to take on the project in-house, and develop a dedicated center of excellence, or if you’d rather bring in the expertise of a partner to help guide you through it. Bringing a partner in will likely be the smoother option, but every organization’s roadmap is different.

4. **Deploy a quick Proof of Concept (POC)**
   Don’t try and do everything at once. Start small with well-defined minimal viable products (MVPs) to quickly develop solutions to your business problems. If you aren’t working with a partner, this is where projects tend to stall out.

5. **Measure your Success**
   Set relevant KPIs and targets to hit and continuously monitor those to see your project through. This should be as much of a milestone roadmap as it is a measure of success.

   It’s easy to lose patience in an AI implementation and seeing the small wins add up is a good way to stay the course (and report to the C-Suite).
Important Metrics to Track

The metrics you’ll want to track will depend on what type of AI use case you’re targeting. Everyone’s situation will be different. Measuring AI tends to be a complex game and people don’t always see the most accurate results.

Your focus should be on tangible improvements that you can clearly see, such as:

**Productivity Improvements**
It’s no big secret that AI is intended to speed up processes and boost productivity, especially when used in conjunction with RPA.

Measure the time improvements and overall productivity increases you see over time.

**Error Reduction**
Another big objective for most is to cut down on manual errors. If you aren’t already keeping an error log with your current processes, I recommend you start now.

Once you have your AI up and running you can then begin to compare and see the reduction in errors committed. This is a great stat to show to senior leadership as less errors means more revenue or savings.

**Solution Scalability**
This is a bit more abstract but still worth measuring and discussing with your team. Is the solution scalable to meet your overall business requirements? Can it be implemented in other areas easily?

Figure out where and what is a fit and develop a plan to scale up accordingly.

Our practical checklist to AI breaks things down in a detailed step-by-step guide, along with best practices and what to avoid.
Digital Twin

An integral piece of the future of autonomous procurement is what’s known as the Digital Twin.

It may sound a bit like science fiction at first, but a digital twin is something very tangible (and practical).

Remember the BP oil spill? What if they could have prevented the rig from malfunctioning? Or the Morandi Bridge in Genoa, Italy collapsing. What if officials could have gotten in front of the aging infrastructure and saved lives?

Using a digital twin model, those preventative measures are now possible. Machines will even be able to repair themselves over time and learn from past mistakes.

A digital twin refers to a digital model (or twin) of a physical asset.

It shows real-time data into the operation and lifecycle of machines, buildings, aircraft and much more to detect and show the root cause of an issue, prevent disruptions, and improve productivity. This is done by hooking smart sensors to an object that provide real time status insights through the internet of things (IoT).

More than just controlling and preventing risks, a digital twin can give insight into power and heat output, usage analytics, material consumption, all while giving recommendations to improve performance and utilization.
This technology is already being rolled out in cities and factories all over the world, but let’s bring this back to how this affects procurement.

I think we can use the digital twin model and technology to enable the next wave of digital transformation. Without any adaptation there’s potential for massive cost savings already.

A recent study by ARC Advisory Group revealed that the global process industry loses up to $20 billion (almost 5% of annual production) due to unscheduled downtime.

By using digital twin technology unscheduled downtime can be reduced to almost zero.

Predictive maintenance reports can drastically reduce system failures, machine shutdowns, and can give boosts to performance and productivity through prescriptive analytics.

AI and Digital Twin: A Perfect Marriage

By combining AI and digital twin technology, an e-procurement tool can be taken to the next level.

Without getting too “into the weeds”, buyers can run what-if scenarios that use various AI driven algorithms combined with data variables picked up from sensors embedded in the product.

This will identify risks before they become issues, and can anticipate sourcing event maintenance, replacement requests, underperforming events, contract gaps and more.

Each item will have a digital twin, and the system can then take the data from that using AI, and turn it into insights to better run events, support compliance, and reduce risks.
A step-by-step process looks like this:

1. The sensors generate a signal from a specific item
2. The platform analyzes the signal trigger, and based on the category and rules, does a contract lookup in your procurement suite
3. Depending on the requirements, it will then execute an order directly to the supplier
4. If it doesn’t match the requirements, it can create a request or launch a sourcing event, all based on predefined business models (like requesting an internal service instead of buying the item)

This convergence will enable an intelligent procurement system to provide customized, situation-specific responses in real-time to individual buyer questions.

We don’t just have ‘procurement’ data to work with now, we have access to the entire lifecycle of a product and the supply chain.

A digital twin lets us capitalize on this data by allowing for prescriptive, proactive procurement and automated real time reporting.

The real value though doesn’t come from just predictions.

It comes from combining AI and the digital twin model to drive continuous improvement and open the door to more efficient possibilities that you may never have considered on your own.

This combination is the final piece to unlocking a true autonomous procurement system, but procurement’s future will come down to our willingness to embrace and adopt this new technology.

One size does not fit all with the adoption of AI. You need strong support from the top, a well-thought out, holistic approach from data to AI models in production, and a foundation of explainability to foster trust in the technology”.

- Nakul Arora, AVP Product Management and Strategy, EdgeVerve
If you’ve made it this far, congratulations! It means you’re serious about digital transformation and that already puts you a cut above everyone else.

We’ve talked about how to implement and use these solutions and what the future looks like, but that’s only the first step.

What comes next is the #1 thing that derails a digital project, even if you’ve done everything else right.

Digital adoption, or rather a lack of it.

Digital adoption is full-time effort.

Think about it. Some people in your company (or you) may have been doing the same job the same way for 10 or even 20 years. Now, just because IT sends an email, you have to learn a completely new system, a new process, a new daily routine and you probably weren’t really told why.

It all comes back to the people aspect of The Golden Triangle.

People need to understand why a change was made.

- How is it going to save the company money?
- Why does it need to be done this way?
- How is it going to make things easier for them in the long run?

These questions need to be answered thoroughly, and often repeatedly, to ensure that everyone buys in.

Technology is a lot of things, but it isn’t magic. People have to use it.

Digital adoption isn’t something you’ll be able to solve overnight, but if your focus is on people, not the technology, then you’re off to a good start.

“The value of an idea lies in the using of it”.
- Thomas Edison

The problem is that most people think digital adoption will be simple, an easy one-off email or training meeting. In my experience that never works.
Turn Data into Actionable Insights

Even the companies that do well at answering those questions often lack a key element: data insight.

You need full visibility into how and where the team, and individuals, are using the solution.

- What features are being used correctly?
- Where do people usually abandon the process?
- Why are certain features not being used?
- How long is the whole process taking and where can things be sped up?

From there it’s about measuring your success. Figuring out where you are now, where you want to be, and how you’re going to get there.

There’s no one “easy hack” that can guarantee adoption but using data insights to drive your decisions is the next best thing.

Once you get that insight you can develop the right training programs, intuitive guides, and in some cases, like with JAGGAER Adopt, you can develop custom journeys that provides guidance in the moment, as people are using specific modules and get stuck.

After digital adoption is squared away, you can finally start realizing the ROI that digital transformation promises.

Change Management

At the end of the day, digital adoption and overall digital transformation really comes down to change management.

Every company is different, every team is different, every corporate culture is different, so naturally, everyone has a different opinion on how to manage change.

You’ll have to figure out what works best for you and your organization, but my philosophy comes down to 10 main principles.
1. **Be Realistic**

Not every company culture is built for change, some can even be downright resistant. You need to look at the company’s history, culture and leadership to set realistic expectations.

Some companies are more agile than others, some thrive in chaos while others need a rigid schedule. Understand that and set your expectations accordingly. Rome wasn’t built in a day and your company won’t transform overnight.

2. **Start at the Top**

It’s a tale as old as time. During a companywide meeting the CEO will make an announcement or speech about changes in the company or changing the culture.

Fast forward six months and nothing has changed. Why? Because it has to start at the top.

Leaders have to set an example first and show people what change looks like. Expecting people to follow blind orders won’t get anyone very far.

3. **Be Thorough**

What I mean by this is change can’t be siloed. Especially in digital transformation, all layers of the company will be affected, from top leadership to interns.

Set out to make your plan with every piece in mind, not just a single department or team.
4. **Create a Roadmap/Clear Vision**
Change is hard. People will naturally be resistant to it because that’s human nature.

Have a clear vision statement that explains what the benefits will be and exactly why change is needed.

When people understand the value of change and can actually see the roadmap, that’s when real change happens.

5. **Create Ownership**
Company buy-in is great, but the only way change happens is with leaders taking charge. There needs to be project owners for all of the various moving parts.

If something isn’t tracking right someone needs to handle adjusting course. Likewise, if something is running smoothly, then recognition is in order.

6. **You Can’t Overcommunicate**
Ironically enough I think this speaks for itself.

Communication is key to creating buy-in, digital adoption, and ultimately digital transformation.

7. **Assess the Current Landscape**
This means culture, it means processes, it means looking at your existing solutions and mapping out all of the capabilities.

You need a full understanding of what your transformation means, but also who it affects and what needs to be changed.
8. **Address the Current Landscape**
Once you’ve gotten your overview it’s time to get to work.

Work with your leaders to create new processes, training guides, eliminate overlapping capabilities and fill in gaps.

9. **Prepare to Fail**
No matter how good or well thought out a plan is, there comes a point when everything falls apart.

People react different ways, market conditions change, maybe your processes aren’t working out like you thought they would.

That’s normal. Start solving one problem at a time until there aren’t any more problems to solve.

10. **Remember the Individuals**
People are the key, remember that. Do everything with people in mind.

Train them, develop skills, make processes to suit your people’s needs, and then clearly communicate at all stages.

Nothing we’ve talked about up to this point can work without people.
Wrapping Up

If you were on the fence before, or not sure where to begin with digital transformation, hopefully now that’s changed.

Whatever people may think about new technologies, the reality is that they’re here to stay.

Technology has the potential to transform the world, way beyond just procurement.

Years ago, there were concerns about computers or smartphones, and now they’re a part of everyday life. It’d be a big mistake if we pass up this opportunity to embrace innovation today.

We’ve gone over a lot.

- What autonomous procurement is
- What technologies are driving it forward
- How to implement and use these technologies
- How to address The Golden Triangle, digital adoption, and your approach to change management
- And quite a lot in-between

Digital transformation has been “at the top of the agenda” for a long-time, but I think now leaders are truly starting to get on board with the importance of it.
Autonomous procurement isn’t something that’s going to happen overnight, but real change happens in the day-to-day.

Don’t wait five years from now to get started.

Start building your data foundation now, training your teams, adopting new technologies and reevaluating your long-term roadmap.

If not, you could fall dangerously behind. 2025 is going to be here before we know it.

Automation, cognitive applications, advanced analytics and practical use cases for AI are all within our grasp, but we have to put in the work today in order to realize that goal.

Throughout this guide I’ve given a lot of practical advice and use cases, but I think the most important pieces are the checklists along the way.

They’ll include everything you need to get started today to achieve a full digital transformation.

- A Practical Checklist to RPA
- A Practical Checklist to OCR
- A Practical Checklist to Augmented Analytics
- A Practical Checklist to AI

I encourage all of you to take these steps and start the creating the future you want to see five, ten or even twenty years from now. Don’t wait for someone to do it for you.

If you have any further questions about digital transformation or anything I talked about in this guide, please reach out to me on LinkedIn or contact JAGGAER to see how we can grow together.

As always keep an eye out for more JAGGAER content on digital transformation and autonomous procurement!
Meet the Author

Amen builds bridges between technology and business all over the world. Now, as Vice President of Product Management, he uses that experience to build effective products that help solve market problems and provide massive value to his customers. He is responsible for defining and executing the JAGGAER’s innovation strategy, changing our customers’ experience, and driving continued transformation across the company. Taking abstract ideas and turning them into reality, resulting in both user satisfaction and metrics growth is Amen’s forte.

During his first years at JAGGAER, he successfully implemented and executed 60+ international projects on four continents in four different languages. His extensive market knowledge and in-depth understanding of customers’ needs empowers the companies he works with to increase their profit margin exponentially and build a growing pool of loyal customers.

His focus on Intelligent Solutions and Innovation has earned him many accolades as a Global Thought Leader, Innovator and Tech Philanthropist. In 2020, Thinkers360 honored him with multiple titles including “No. 1 in COVID-19 Business Impact,” “No. 1 in Open Innovation” and “No. 5 in Procurement.” In 2021, he has been named as recipient of Supply and Demand Chain Executives 2021 Pros to Know Award.
Special thanks to all of our partners who contributed to creating this guide