Establishing a Robotic Operating Center of Excellence

A Proven Strategy to Scale RPA

CrossCountry CONSULTING

TABLE OF CONTENTS

Establishing a Robotic Operating Center of Excellence

You have probably already recognized the significance of automation to the future of business. What you may not realize is the scale and breadth of things already in motion: Automation, artificial intelligence (AI), machine learning (ML), quantum computing and other new technologies are already being referred to as the fourth industrial revolution. Whether or not you recognize the impact of where business is related to these new technological enablers, we can all agree it is significant.

According to the 2018 "The Future of Jobs Report" published by the World Economic Forum, "The Fourth Industrial Revolution is interacting with other socio-economic and demographic factors to create a perfect storm of business model change in all industries, resulting in major disruptions to labor markets," and cited interesting statistics. *(See right)*

133M *new roles may emerge that are more adapted to the new division of labor between humans, machines and algorithms*

75M *jobs may be displaced by automation*

By 2022, human hours replaced by machine labor on administrative tasks in financial services will rise to **61**%

With words such as "transformative," "disruptive," and "opportunity" used to describe the impacts of these new technologies, future market winners will be organizations that are most successfully ingraining them into their cultures and tossing out old notions of how work is done, organized and managed:

- **Transformative:** These technologies will offer new ways to transform how work is done, how services can be delivered, and fundamentally different and optimized organizational structures.

- **Disruptive:** Established incumbents that fail to adapt will be replaced by new market entrants and smaller players who embrace these new technologies to generate huge competitive advantages.

- **Opportunity:** The speed and ease of use of these new technologies is one critical factor, but the ability to amplify the impact of work is what we see as the fundamental difference between these new technologies and those of the past 50 years.
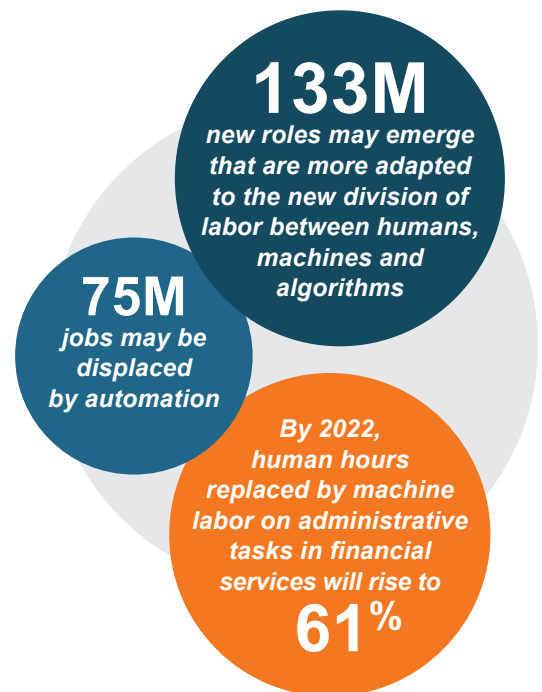
So how does an organization successfully adopt these technologies to avoid being disrupted out of business? The short answer is to simply start with a technology that is readily available, proven, and falls on the spectrum of new disruptive technologies.

One that checks all these boxes is Robotic Process Automation (RPA). A key theme we see with clients is that they find it easy to start, but then progress rapidly slows. They learn it can be extremely difficult to grow and scale their automation program. Many companies struggle to maintain RPA in a sustainable way to capture the benefits of organizations that truly transform how they operate both back and front office customer-facing processes.

RPA enables people to take advantage of otherwise inaccessible technologies, and is the gateway for companies to gain advantage by adopting others such as artificial intelligence (AI), machine intelligence (MI), chat bots, blockchain, and advanced analytics. Without RPA, these technologies will either be isolated implementations stitched together via manual processes, or prohibitively difficult to leverage to any noticeable benefit.

If RPA is a key foundational technology that can enable an organization to take advantage of all of these other technological enablers, it stands to reason that it's highly important that RPA be implemented successfully.

As with any endeavor, good planning supports good execution. With RPA, good planning starts with a well thought out approach. Most organizations start small and only later realize they need some structure, standards, policies, and shared competencies that create a foundation and environment for RPA to be a success. The best way to get to a successful approach is by establishing a program with the right mix of components that will enable your organization to effectively adopt a formal RPA program, generally referred to as a Center of Excellence (COE).

Whether you are only contemplating the RPA journey, or have already started and have experienced some of the pain points from the lack of a program, there are some things you can do to set up your organization for success. Here, we'll provide you with a roadmap explaining the value of a Robotic Operating Center of Excellence (COE), and the steps and key considerations necessary to establish a world-class program.

What is a COE and Why Does it Matter?

A Center of Excellence (COE) is one of the most commonly adopted terms used by commercial and government organizations today. However, this can be a nebulous definition used to describe very different entities.

Some COE descriptions come with varied capabilities, mandates, and scope spanning from simply defining guidelines and best practices that can benefit a large organization, to controlling access to emerging technology and the resources required to leverage those capabilities.
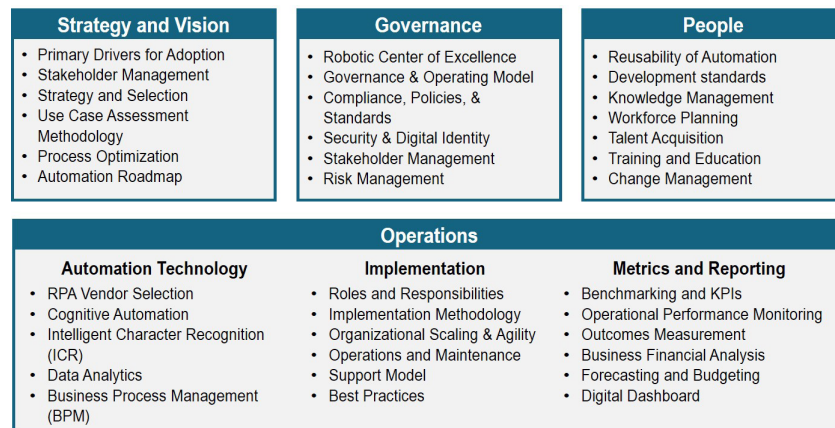
In more practical terms, a COE is focused on capabilities that enable the adoption and use of technology to drive business value. Rather than think of them as a monolithic overseer of a function or discipline, a COE provides structure, governance, guidance, policies, standards, and guardrails for your organization. To further simplify, it is merely another program tasked with carrying out a function or delivering value to the organization.

In the context of RPA, we have adopted the term Robotic Operating Center (ROC) because it has a focus of operations and execution rather than simple standards and definitions. Standards and policies are often an important factor in helping organizations succeed with adopting and deploying new technologies. However, building on our practical view of ROCs, we see the main purpose of a formal program is to increase the odds that an organization will be successful in adopting RPA in a long-term, sustainable way.

The capability areas that should be part of the scope of a ROC fall broadly into four categories:

- **Strategy:** Future state vision and strategic requirements of your program stakeholders

- **Governance:** Key capabilities necessary to deliver on your program goals

- **People:** Human factors influencing success and helping people affected by change to adjust to the new state

- **Operations:** Operational support elements reinforcing the program and ensuring sustainability and scaling – business, IT, and RPA platform.

PROGRAM FOCUS AREAS

Strategy and Vision	Governance	People
• Primary Drivers for Adoption • Stakeholder Management • Strategy and Selection • Use Case Assessment Methodology • Process Optimization • Automation Roadmap	• Robotic Center of Excellence • Governance & Operating Model • Compliance, Policies, & Standards • Security & Digital Identity • Stakeholder Management • Risk Management	• Reusability of Automation • Development standards • Knowledge Management • Workforce Planning • Talent Acquisition • Training and Education • Change Management

Operations

Automation Technology	Implementation	Metrics and Reporting
• RPA Vendor Selection • Cognitive Automation • Intelligent Character Recognition (ICR) • Data Analytics • Business Process Management (BPM)	• Roles and Responsibilities • Implementation Methodology • Organizational Scaling & Agility • Operations and Maintenance • Support Model • Best Practices	• Benchmarking and KPIs • Operational Performance Monitoring • Outcomes Measurement • Business Financial Analysis • Forecasting and Budgeting • Digital Dashboard

Expanding on these four pillars, the above illustration shows specific focus areas that are beneficial to achieving the goals of the program. While most organizations that create a formal RPA program will not have a fully defined function for each of these capabilities, they will consider them all and make choices about which focus areas are most important to their specific situation. At a minimum the COE will identify the capabilities they provide and govern with a varying degree of formality. Below is an illustration of a fully defined Robotic Center of Excellence.

MATURE ROBOTIC OPERATING CENTER OF EXCELLENCE
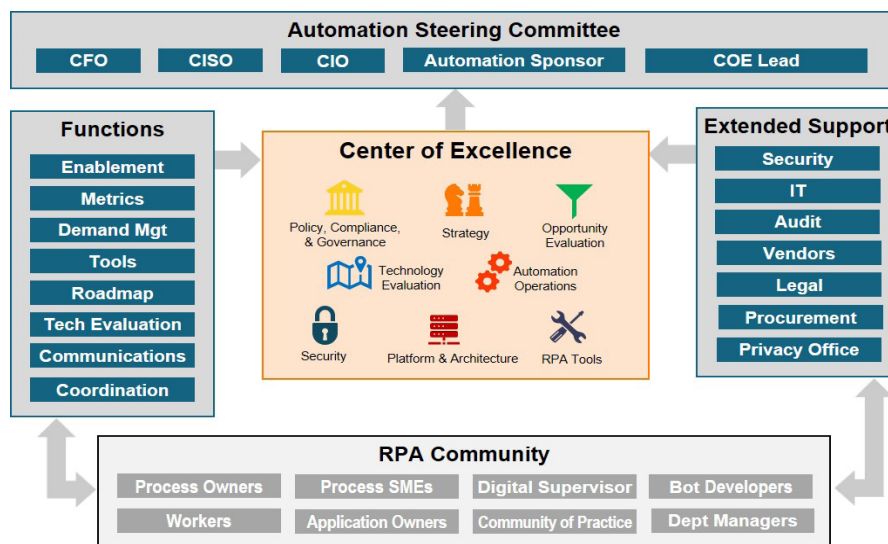
One side of the capabilities spectrum might be a set of definitions and best practices to guide stakeholders, while the other could be a formal policy managing access to technology where the program controls the resources that have responsibility for handling the execution of that function within the organization. Ultimately, most commercial organizations will not need robust support for all of these capabilities, but you should consider them all and develop those focus areas that are most important to the success within your specific environment.

This table illustrates a few common challenges and obstacles many organizations face in establishing a Robotic Operating Center.

CHALLENGE	HOW A ROBOTIC OPERATING COE CAN HELP
Absence of an Adequate Change Management Plan RPA is user centric, leading businesspeople for the first time to play a larger role in the development and execution of bots. However, if they forget about managing the impact of change, it can lead to significant daily challenges with bot operations.	**Establish Formal Change Management to Sustain RPA** • Integrate change management procedures into governance to ensure changes to bots follow the same controls as new use cases. • Change management should include use case review and approval, code and compliance reviews, testing, and sign off. • Develop procedures to expedite critical bug fixes that maintaining program compliance. • Do not forget about password maintenance. There needs to be a secure and compliant process to update them prior to the bot failing.
Neglect the Importance of Design Authority One area where programs struggle when scaling across an enterprise is maintaining quality and consistency in bots. Teams left to figure out things on their own will result in a varied degree of quality and success.	**A Formal Program Can Help to Set Expectations of All Teams Developing Bots** • Define a Robotic Development Lifecycle (RDLC) governing the actions, sign offs and artifacts. • Create an expectation of structure and formality so people do not have to wing it. Setting this expectation early will prevent resentment of teams later who are asked to align with central program practices. • Providing a standard approach and template for others in the organization to replicate will increase their odds of success. • Educating staff on characteristics of good process and design will reduce risk.
Key Stakeholders Excluded From Planning and Execution The ease of use, rapid pace, and personal nature of RPA has resulted in teams who forget to involve all the right people throughout the project, leading them to overlook important requirements such as legal or regulatory considerations.	**Establish a RACI Matrix that Supports Program Procedures and Governance** • Review the organizational structure to identify key stakeholders that fall outside of the daily processes. • Include all departments in your RPA education efforts to uncover impacts to important compliance and organizational obligations. • Interview key contacts from across the organization, letting them know what the program is doing and why it matters to them. • Involve departments that do not typically have a say in technology and allow them to weight in with their perspective. This will create an ally who is enthusiastic in your quest to transform the organization rather than an opponent who feels that their legitimate concerns have been overlooked.
Security Team Resists Adoption of RPA One of the most prevalent challenges we hear from clients is the difficulty of dealing with their security organization. Most security teams are resistant to and inherently suspicious of RPA.	**Establish a Standard Approach and Policies to Enable RPA** • Partner with security to bring key identity and data security resources to the table early. • Identify ID management policies that support speed. • Have a clear understanding of organizational security requirements and policies. • Identify how policies may need to adapt for RPA. • Provide education and awareness to application owners.

CHALLENGE	HOW A ROBOTIC OPERATING COE CAN HELP
Privacy and Data Security Difficulties Existing manual processes may not be compliant with critical privacy and data security policies. Automating these processes as is can magnify the risk and can be a nonstarter when discovered by your security team, bringing your whole program to a halt.	**Establish a Methodology that Includes Risk Assessment and Important Milestones** • Define a standard approach to reviewing use cases. • Ensure critical considerations are consistently examined. • Establish a mechanism to ensure processes are automated and compliant with company policy. • Establish controls to ensure automated processes remain compliant over time. • With ongoing compliance monitoring, maintain a known inventory of all automated processes, standard documentation, and formal approvals.
Bots are Not Running Smoothly on a Consistent Basis Small changes in processes and applications can cause a bot to fail, and system outages can prevent them from completing their job.	**Establish an Operational Support Capability Benefiting the Entire Organization** • Help desk support model for day-to-day issues. • Track issues and root causes to provide valuable insights. • Central infrastructure, platform, and procurement. • Education of stakeholders regarding realistic efforts to manage bots. • Shared capabilities and tools to enable stakeholders to complete common activities. • Communication of important information affecting the environment, including system maintenance tailored for bot owners.
Organizational Expectations of Business Value are Not Met Leadership and stakeholders can have different expectations of what RPA will do for the organization. Process owners may seek efficiency while executives might be expecting hard dollar savings. This disconnect can be exacerbated by the difficultly in measuring the business value being generated by your bots.	**Define Clear Goals and Ways to Measure Progress** • Gain agreement on a common understanding of goals and define governance and polices that align automations with expectations. • Develop standard solution for tracking and reporting business value of each bot. • Develop a common definition of hard and soft benefits, and gain agreement on which benefits will be counted. • Provide guidance to the organization regarding benefits that go beyond the obvious to ensure the program is incenting work that contributes to long-term transformative outcome, not just short-term financial return.

It's important not to lose sight of the overall goal of adopting RPA. Creating sufficient structure and foundation will aid your effort to unlock the massive potential transformation and the generated business value. Organizations that reach this milestone show a commitment to delivery and excellence, and a determination to improve the effectiveness of the products and services they deliver. When standing up a ROC, it is important to think differently about how RPA can benefit the organization broadly, and commit to supporting and enabling rather than simply controlling. By providing a value-added menu of capabilities that enable the organization to be successful while controlling risks, you will win the hearts and minds of your stakeholders. Provide the guardrails in an easy-to-understand and easy-to-use format, and look for any opportunity to remove friction in the governance process.

Identify an Executive Sponsor

Identifying an executive sponsor to implement a major initiative might seem like an obvious step, but when it comes to RPA, its importance goes beyond the typical project leader role.

The potential RPA can have in driving efficiencies, improving operations, and increasing compliance is easy to see. Many executives start with a vision to reduce headcount, but this has proven to be short sighted and elusive. In practice, RPA can automate tasks, but not entire jobs. Labor is partially freed up to focus on more value-add activities, but it takes an executive with vision and determination to reorganize work, positions, departments, and budgets to consolidate the smaller efficiencies into larger buckets of concentrated savings.

The importance of an executive sponsor goes beyond the obvious role of project funder, direction setter, and cheerleader. RPA directly impacts the day-to-day work employees do in a way not seen before, leading staff to ask, "Will the bot take my job?" The personal nature of the impact to employees' daily work lives is precisely why the role of a sponsor in an RPA project is different from a traditional technology effort. While the executives can say yes to a bot, the process owners, department managers, and staff performing the work can say no.

The process owners and staff have tremendous influence with their management to identify and decide which processes should be automated. Because RPA is process-centric, the employees whose processes are impacted need to believe the bot will make their work lives better, and free them up to focus on more value-added tasks; if they do not believe the bots can perform as well as they do, they may argue a process is not a good candidate for RPA.

It is also common to hear from department heads that before automation, process owners tell them their manual procedures take a long time and require quite a lot of effort. But when it comes time to give up resources after automation, those same process owners feel the tasks actually do not take that much time. This may cause leadership to feel they are not getting the promised benefits and that perhaps automation is not living up to the hype.

What does an executive sponsor provide?

This is where the role of an RPA sponsor is different from a typical project and why it's so important to the outcome of the program. They should provide:

1. Support

Provide the necessary support within the organization to establish the program, gain cooperation of peers, and clear obstacles.

2. Change Management

One of the most challenging things to do is to gain real sustainable change within an organization. Just like individuals, organizations develop habits and views that reinforce the culture of the enterprise. This can be a very powerful tool to create consistent delivery results and set acceptable standard for operations. However, when forced to adapt to an emerging technology or other threat, it is this very reinforcing function that can work against a leader striving to alter the direction of the organization. This is where a leader can play a pivotal role in driving change:

- Start by laying out a vision for why the change matters to the future.

- Next, explain how this will be a positive development for employees.

- Finally, paint a picture that will help them imagine the positive improvements the bot will have on their work experience.

Change is difficult for most people and, generally, they will not pursue it until their situation becomes less certain than an unknown future. Change management is a critical element to help employees move through this process and arrive on the other side more optimistic and energized to tackle the new challenge.

3. Evangelism and Culture

Evangelism is more than cheerleading. It plants the seed for RPA to take root, cultivates the environment so it can grow, and creates a vision of the future organization and work of employees. The job of the chief RPA evangelist is not to just bring the CEO along for the ride. They must also win the hearts and minds of the people most affected by this new technology. The challenge is to show staff what the future could be and how they will be a part of it. By doing this, the evangelist helps employees to not only see the potential of RPA, but gets them to start thinking about automation as a first solution, not as simply a workaround to remove tedious work.

Without the automation first mindset, it becomes difficult to identify good use cases and impossible to unlock the full potential of RPA, which is to transform how work is structured at a staff, department, and

company level. Truly transformative RPA programs use bots to deliver front office, customer-facing services in the way customers want, not simply how the company is able to deliver it within their legacy capabilities.

4. Set Realistic Expectations

The sponsor is in a unique position to influence the attitudes of leadership and peers throughout the organization. This is a critical role that has a huge impact on the ability of the staff-selecting processes, building the bots, running them, and managing the program. When a program is influenced by unrealistic expectations, many unintended consequences can occur. Rushing work results in poor bot execution rates or choosing less desirable use cases just to show progress. Setting expectations that align with the strategic goals, and exercising discipline in keeping focus on the activities that support those broader more transformative goals, will yield better outcomes.
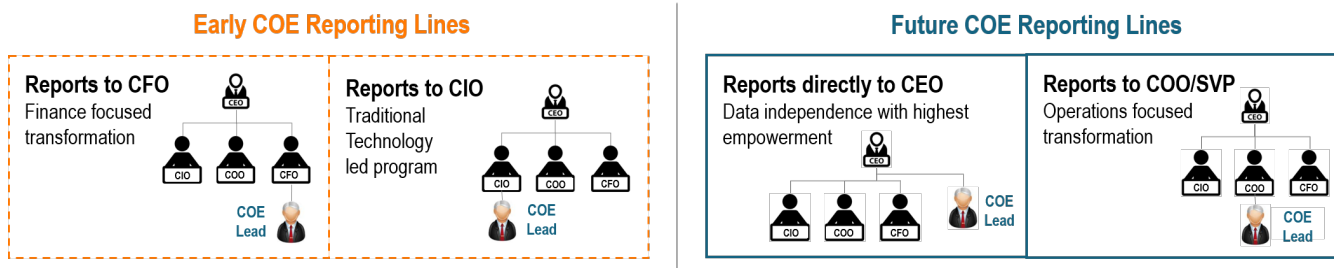
Who should be the executive sponsor?

These characteristics should be weighed when selecting a sponsor to serve as the program champion:

1. Influence

The sponsor ideally is someone with credibility and influence within the organization. Influence should be both in the form of their level within the organization as well as their reputation. Choosing a leader who simply has authority but not influence will let you get started, but as the obstacles and challenges mount, they will not be armed with the necessary influence to help clear them. Most often we see sponsors aligned with the CFO and CIO. The CFO-led projects are the result of finance departments typically being an early adopter of RPA, so they were first to drive the initial RPA projects. We have also seen sponsors aligned with the CIO because RPA requires support and partnership from IT, which feels like a natural fit in many organizations.

ORGANIZATIONAL GOALS INFLUENCE THE OPTIMAL STRUCTURE

Early COE Reporting Lines

Reports to CFO
Finance focused transformation

Reports to CIO
Traditional Technology led program

Future COE Reporting Lines

Reports directly to CEO
Data independence with highest empowerment

Reports to COO/SVP
Operations focused transformation

There have also been cases where the CIO views RPA as just another form of shadow IT or as a threat to their function within the company. So some CIOs either volunteer to own the program, or lobby to own it.

We see this fall short when these executives are absent champions, outsourcing the evangelism to the program leader who is at a lower level within the organization. In these cases, they lack the authority and/or influence to clear obstacles and negotiate for change. Where we see mature organizations heading in the future is to align RPA programs directly under the most senior leaders within the company - such as the CEO, division president and COO - with those leaders serving as the chief evangelist and recruiting lieutenants across the organization to amplify their message.

2. Vision and Imagination

The sponsor should have a vision for the future organization. This involves forward thinking about how new technologies can position the company to thrive in the face of disruption. An important part of being forward looking is recognizing that it takes time, dedication, and discipline to see things through and not pull the plug prematurely. When embarking on a new RPA initiative, it helps to imagine how some of the very foundational capabilities of the company could be transformed and not just think about headcount savings. Leaders then should relentlessly share that vision broadly and deeply throughout the organization.

3. Open-Minded

Open-minded individuals are curious and willing to consider other points of view. They are willing to question the status quo not because they think it doesn't have value, but rather, they recognize they may not always have the right answer and aren't afraid to ask why. Closed mindsets are backward focused and come from a place of experiences and memories of when one took a risk and it didn't pan out, saying things such as, "That's not how we do things here." An open mindset is future looking, imagines what could be, and possesses a deep well of optimism, saying, "What are you trying to accomplish?" Having a future-looking perspective and imagination are necessary in order to foster creativity and challenge the status quo.

Choosing the right sponsor who has the vision, belief, and energy to recruit RPA fans at all levels of the organization is the starting ingredient for success. You must then have the discipline to remain focused on the activities that propel the program toward long-term achievement. And finally, the last ingredient is to possess the right mix of influence so that the messenger is believable and authentic to leadership and, most importantly, the staff whose day-to-day work is impacted by automation.

Business Value: Identify Goals & Realistic Expectations

RPA is quickly becoming one of the fastest growing technology sectors. According to a new study from Gartner, "Finance departments can save their teams from 25,000 hours of avoidable rework caused by human errors by deploying robotic process automation (RPA) in their financial reporting processes."

It's clear there is huge potential for RPA, and we've only just begun to scratch the surface of market penetration, as well as optimizing the capture of business value for organizations that have started implementing it within their operations. Current estimates are that RPA will cross over from an emerging to a mainstream technology in 2020 once market penetration surpasses 15 percent.

All of this is to make the case that RPA is just getting started on transforming companies into digital organizations, and yet the potential benefits immediately available today are immense and predicted to continue on a higher growth path. By some estimates, the global RPA market is estimated to develop at a Compounded Annual Growth Rate (CAGR) of 20 percent from 2019 to 2025. This is even without knowing how successful RPA vendors will be at expanding the capabilities of their platforms to cope with unstructured data. The growth potential will be even greater if they are successful in infusing cognitive capabilities that will enable ever more complex processes, business rules, and dynamic decisions without the involvement of humans. The leading vendors - UiPath, Automation Anywhere, and Blue Prism - recognize the need to make headway in these areas in order to ensure RPA continues to live up to the hype, which is evident when you look at the partnerships they are developing and their product roadmaps.

Help Maximize Business Value

Take Steps to Develop a Healthy Pipeline

1. Build trust with process owners and operational teams by being transparent on the expectations and reach mutually agreed-upon goals and metrics they can support. If they agree up front to a process by which efficiency savings could be translated to budget savings, they will be more enthusiastic about pursuing automation.

2. Work directly with operational teams to identify an inventory of processes and quantify the opportunities beyond the siloed annoyance-type improvements. With thoughtful use case selection focused on processes that cut across different teams, you will gain great benefits and efficiencies.

3. Consider providing process analysts to work with process owners to root out high-value business processes, and then ask, "Where do you get the data? Who is the user of your work product?" You can use this information to examine whether a more end-to-end automation is possible. Some added benefits of automating more of the process, especially the areas that cross department boundaries and have several handoffs, is that handoffs slow things down and create opportunities to introduce errors.

4. Choose use cases with care: Automating the right things is how you will ensure the longevity of your program. Develop a basic set of process fit templates to provide an objective method of use case evaluation to help ensure you have some consistency across the organization and guidance on which processes are likely to provide the greatest benefits. Customizing the templates to favor use cases that align to your program goals is a good way of funneling the best ones to the top of the list.

However, do not forget about the other departments that may not have the highest-value use cases. Make an effort to spread the benefits of RPA broadly across the company by taking on use cases for departments who have not been as engaged in the program, but would ultimately add value. The more broadly you engage with the organization, the healthier, more creative, and impactful your use case pipeline will be.

Strategies that Maximize Business Value

1. Establish goals that are consistent with the expectations of leadership and process owners. While leaders have the power to say yes to an automation program, process owners have the power to say no to specific processes. Many clients struggle with capturing benefits because they failed to gain alignment on goals and expectations throughout the organization.

2. Consider how you will measure your bots and what you want to measure. Get agreement from your program sponsor and stakeholders on what will be measured, ensure those metrics are aligned with your program goals, and create incentives for those goals to be met. By understanding the expectations of all stakeholders from the sponsor to the workers, you can set goals that align expectations and reality for RPA in your organization.

3. Take advantage of RPA to reinforce your Business Continuity Plan. By augmenting human capacity with a robotic workforce, RPA is a very good technology to improve crisis preparedness.
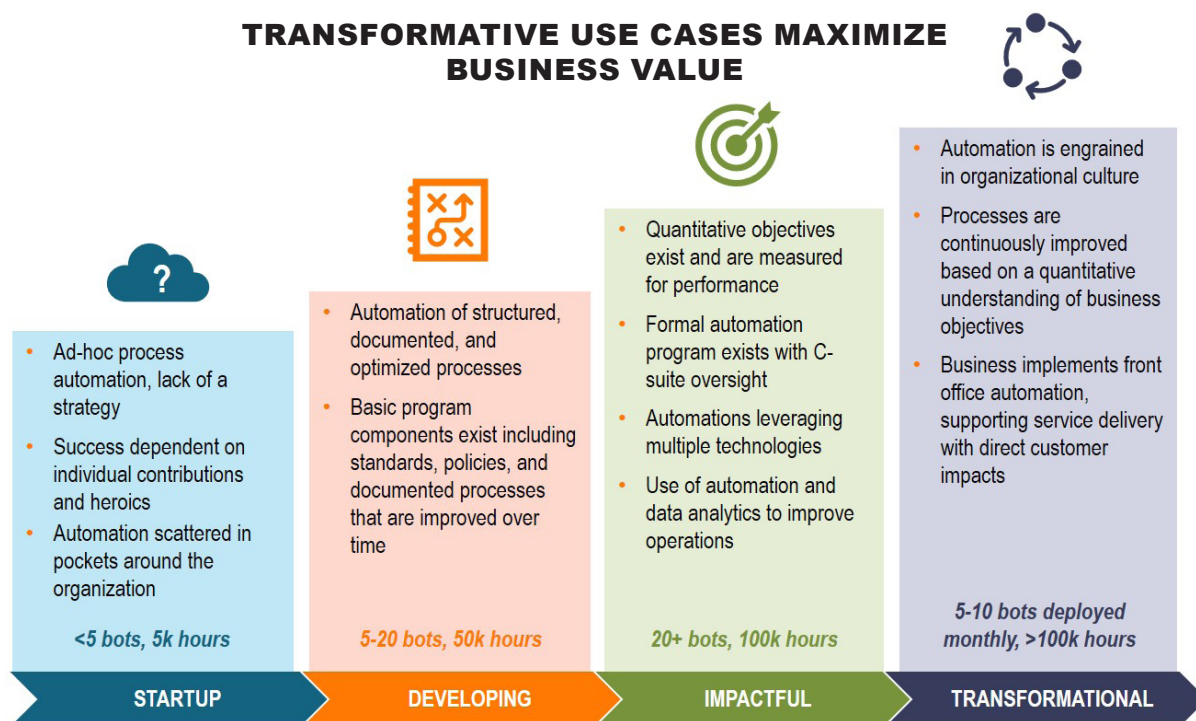
Some ways RPA provides for business continuity include:

- Leverage existing RPA capacity from normal operations to quickly scale in times of uneven demand.
- Codify business and process knowledge, benefiting all members of the team.
- Supports 100% remote work, allowing your employees to easily collaborate with coworkers from home.
- Schedule high-volume, network-intensive processes for execution during off-peak hours.

4. Educate employees at all levels about RPA and the types of benefits that are realistic. The education process needs to be sustained and ongoing, and can be infused with the evangelism that should be occurring if an organization wishes to maximize the impact and benefit of new digital technologies.

5. Focus on value rather than Return on Investment (ROI). It is easy to achieve a high ROI in a very short period, but it can sometimes distract from focusing on processes that have longer-term transformative benefits that are less financial and more foundational. RPA can ease the burden of undesirable tasks and reduce the frustration of employees by rewarding their creativity, promoting innovation, and increasing engagement. While every use case may not reduce FTE, you can create capacity that frees up current employees to take on more activities that support non-linear business growth.

6. The speed and simplicity of RPA implementations make it possible to move directly to RPA 2.0. You can tackle use cases with low hanging fruit, quick returns, and direct customer experience improvement. The speed of an RPA project allows you to more easily experiment, fail fast, and learn from those failures. Consider tracking these efforts and promote the results as a way to bolster the innovative spirit in your firm.

7. Do not neglect the funding that IT will need just because RPA falls outside of their capital planning process. Traditional technology budgeting approaches may need to be adjusted for RPA. Include IT as a stakeholder from the beginning to ensure they consider budget needs to support the program. While IT may not be building the bots, they may support infrastructure, help desk, automation software and tools. While their role may be limited early on, they will require funding to deliver that support at scale.

8. Migrate from an inward to an outward focus. Rather than concentrate all your energy on how to do things better and faster internally, consider how to leverage RPA to serve your customers more effectively. Even programs operating at scale struggle to make this change. One way to measure how well you are transitioning is to calculate the number of information domains and process silos across use cases. Collect these elements as part of the use case intake and build metrics to show whether they are increasing in organizational complexity.

9. Avoid creating the wrong kind of incentives by focusing too much on hard-dollar savings. The real value of RPA is it's ability to transform, but transformation will be elusive if you focus too much on headcount savings. Take

the time to understand expectations and ensure that they are realistic and support your transformation goals. Clearly align goals and expectations, and develop metrics to track this progress.

This graphic provides a view of the relative maturity of an RPA program—from startup to transformational. One of the hallmarks of transformational programs is the quality of use case. Organizations that leverage RPA to improve service delivery in the front office are representative of a mature RPA program.

TRANSFORMATIVE USE CASES MAXIMIZE BUSINESS VALUE

STARTUP
- Ad-hoc process automation, lack of a strategy
- Success dependent on individual contributions and heroics
- Automation scattered in pockets around the organization

<5 bots, 5k hours

DEVELOPING
- Automation of structured, documented, and optimized processes
- Basic program components exist including standards, policies, and documented processes that are improved over time

5-20 bots, 50k hours

IMPACTFUL
- Quantitative objectives exist and are measured for performance
- Formal automation program exists with C-suite oversight
- Automations leveraging multiple technologies
- Use of automation and data analytics to improve operations

20+ bots, 100k hours

TRANSFORMATIONAL
- Automation is engrained in organizational culture
- Processes are continuously improved based on a quantitative understanding of business objectives
- Business implements front office automation, supporting service delivery with direct customer impacts

5-10 bots deployed monthly, >100k hours

10. RPA works very well in an agile scrum development methodology. The low code modular nature of the major development platforms means you can deliver fully functional sections of process automation within a weekly or biweekly sprint. The quick feedback loop of an Agile Scrum methodology means you can limit time spent on documentation and maximize effort on building the bot and incorporating feedback from the process owner to start capturing business value in weeks instead of month.

The growth of RPA is not an accident, and it's not surprising that economists and academics are referring to this as the fourth industrial revolution. Thousands of companies have already seen significant benefits from automating manual processes. More than a trend, it's a technological wave that will carry businesses that adopt RPA well into the future and create competitive advantages over those firms that are resistant to implementing these new technologies. With all of the potential RPA has to offer, and the important competitive advantage these new digital technologies will provide, it's critical that companies start off on the right foot by understanding what they are expecting from the program, and structuring it towards that end.

RPA: The Promise and The Challenge

We've touted the unique advantages of RPA many times. From its ease of use supported by a low-code development environment and the non-intrusive nature by operating at the user interface level, to it's advanced cognitive capabilities that help to create robust automations that can cope with a dynamic business environment.

RPA is a technology that is helping organizations to fundamentally alter the operational landscape of business. However, it's important to be aware of the obstacles you may encounter on your automation journey.

RPA Challenges are Not Just Technical in Nature

With all the growth and early promise of RPA, it is not without its challenges. Here are common themes we have seen companies struggle with:

1. Early Bots that were Built Don't Provide the Expected Returns

The first few bots implemented tend to be simple automations that are easy to deliver. They provide a quick win and build support within the organization, but this sets an expectation that all bots can be delivered in a few days or weeks. Early on in a program, the pressure to show progress is high, which can sometimes lead to selecting low-value use cases that are quick to implement. The expectation of an artificially swift delivery timeframe coupled with processes yielding small benefits results in a program at the end of the first year with little accumulated business value. What's worse, the business value that is captured may be inconsistent with expectations, such as providing efficiency when leadership was expecting hard-dollar savings.

2. Measuring Business Value Generated By Your Bots is Challenging

If you're unable to articulate business value in an objective and quantifiable way, leadership in your organization may lose faith in the automation program. While you may feel the bots are adding value and the program is progressing, the broader organization may not feel the same. The challenge comes from the absence of a method to ascribe worth to the bot tasks in a credible way, and the technical challenges with merging bot run statistics and transactions with business value data elements. While vendor tools are making it easier to measure and report business value, it

still requires planning and forethought to ensure that you are associating credible savings amounts to the bot tasks, as well as capturing the right data that is meaningful to your organization.

3. The Automation Program can Lose Steam

As the program becomes established and the initial excitement fades, the use case volume and quality may trail off. While process owners are generally able to identify a list with good benefits, several factors come into play that can impact your ability to continue recognizing good ones:

- Lack of imagination in where automation can help

- Poor understanding of the capabilities of RPA

- Closed mindset of process owners leads to resistance in questioning the status quo

- Belief that RPA can replace people and whole jobs

4. Fear of Job Eliminations

A common misconception is that bots automate whole jobs. This can stem from the expectation and desire of management to take the 40 hours of manual work spread across multiple employees that was saved, and use it to eliminate a single position. This expectation can lead process owners to under-report the actual savings and create a reluctance for them to sign up for future use cases. Job replacement is only possible for positions with a very narrow scope of tasks. In reality, companies that understand this productivity equation can start to see real efficiencies when the saving is used to reallocate work across their employee base.

The enormous potential of RPA to hyper-charge your operations can only be achieved if you can effectively cope with the challenges you will face. While many companies have experienced some or all of these challenges, they can be overcome with preparation and planning. When embarking on an automation journey it's crucial to anticipate the obstacles and include countermeasures in your strategy to ensure that they do not derail your program before it even has a chance to take root.

Avoid the Pitfalls: Misconceptions & Mistakes

Don't let common misconceptions derail your intelligent automation program. Despite best efforts, some organizations fall prey to fallacies and mistakes that slow the adoption of RPA, and fail to obtain the expected benefits of automation.

Here, we investigate some of the most prevalent mistakes and beliefs we have seen over the last several years.

1. Thinking RPA Is Easy

It's true RPA is a very powerful tool that enables you to develop highly effective and complex process automations without a steep learning curve. Rather than requiring years of intensive technical training at an expensive trade school or university, the low code nature of top RPA platforms make it easy to become an effective implementer within a few months of free training. This can create a false belief that anyone can create high-quality, robust, and stable bots and start capturing enormous business value within weeks. As with most technical disciplines, completing training is the start of the process and just one ingredient that goes into a successful effort.

2. Good Requirements Still Matter

If you do not fully grasp the purpose of the project, and cannot articulate what your company needs to accomplish, this is a clue that you may need to focus more time to understand what underlying problem needs to be solved.

Requirements gathering is an activity that can be challenging to do well, and is a skill that some people hone over years to master. Far too often we see requirements that are poorly written, which leaves them open to reasonable interpretations that result in a well-written piece of code, but does not address the problem the end user needs to solve. Well-written requirements are structured and traceable back to the original statement of business need. They should be written in such a way that there is little ambiguity.

Another problem is delivering exactly what was asked, but not what was needed. The inevitable results are frustrated end users and IT teams, additional cost through rework, and finger pointing. The main purpose served by a requirements and design document is to communicate the problem to be solved. The most formally drafted requirements and design documents do no good when the right problem is not identified. Organizations mistakenly confuse going through the motions of a development methodology with adding value. Understanding the underlying purpose of a project is critical to success.

A technique called the 5 Whys can be beneficial to help uncover the root business problem and purpose for the work effort. When provided with a business requirement, simply ask, "Why?" If the answer doesn't effectively clarify the need, ask again. Generally, five is the number of iterations needed to identify the problem. Once armed with the purpose and the details of what your project needs to accomplish, it can serve as your guidepost along the way.

3. Not Bringing Human Work Into the Equation

With RPA, the degree that technology and process are intertwined has never been greater. The most successful RPA projects account for how the human will interact with the bot. Whether it incorporates the human in the execution of the process, or the bot provides clear status when issues are encountered, it's not the specifics of how the human is involved, but the level of consideration given to how they will understand what is happening and what role they are expected to play in the process. Don't forget that RPA is nothing more than a tool to make life easier for people to complete business processes. The bot should not operate in total isolation, but works best when it is transparent to the humans responsible for the process.

4. Working in Isolation

The potential of RPA is perhaps the most significant of all of the new software technologies seen in the last several decades. While it's a great tool to automate away simple annoyances and low-level processes that individuals complete, the companies that focus exclusively on these areas are missing out on the real power of RPA.

Many business users believe work that is hard for them to personally complete is equally hard for computers to do, and work that is simple for a human to do is equally simple for a computer. In reality, the opposite is often the case. This leads to a lack of imagination in problem solving. Similar to a closed mindset, the process owner simply does not possess the perspective or skills to recognize how they are limiting the final outcome of the automation.

While it is important for companies to work in a collaborative way when trying to expand beyond automating the low-impact standalone processes of siloed individuals, it is even more so for the COE to work in concert with their business stakeholders.

A common mistake we see with clients is where the COE is not synced with their business partners. The COE staff believes they are doing well, but the business owners whose processes are being automated have not seen the value they expected from the promise of RPA. Many times, there are several smaller automations delivered, but the business value is also small. One important step to take at the outset of the program is to set clear expectations between the COE and the business regarding the metrics that will be used and how success will be measured. It's critical that the business stakeholders take ownership of these metrics and agree that if they are met, then they will view the program as a success.

Business leaders need to work alongside their IT counterpart to design an end-to-end intelligent automation solution on a much deeper level than automating simple tasks. At the outset of your automation journey, partner with IT and security to leverage their expertise and share responsibilities for the delivery of program capabilities.

Key areas of collaboration between business process owners, the Center of Excellence, and Information Technology include:

- Platform selection
- Infrastructure provisioning
- Security policy
- Bot identity
- Data privacy
- Program tool selection and implementation
- Governance design
- Processes and policies

5. Underestimate Operational Support

The consumerization of tech introduced most recently through mobile technologies such as 5G wireless service and smart phones has created an expectation of seamless experience with

little thought given to design or planning. The increasing ease at which user experiences can be controlled by the end user thought settings and configuration preferences has led to some organizations treating their enterprise projects like consumer-based applications. Based on this, little regard is given to requirements, testing, deployment, or production operations.

With ease-of-use as one of the main selling points of RPA, referred to as "democratization" of the technology by most RPA vendors, the focus becomes the creation of bots at a rapid pace. This leads to organizations ignoring the importance of operations. Key areas that ensure a good user experience and prevent disruptions to critical business operations include:

- Roles and responsibilities for front line support
- Help desk
- Disaster recovery and business continuity
- Trouble shooting of infrastructure issues
- Software installation on virtual machines
- Production deployments of bots
- Bot credential maintenance

While RPA vendors are offering robust capabilities and rapid bot advancement in their low code development kits, it is still critical to account for how your program will operate. We see many companies struggle with their production bots because they have failed to adequately plan for the necessary operational components to ensure their RPA programs run smoothly. RPA is much more tightly coupled with technology and process, bot and human. However, the expectation of how involved end users need to be may not align with what is required to ensure stable operations.

In traditional enterprise systems, IT tends to supervise the operations of the system, responsible for responding when a program fails, often without the knowledge of the business owner. RPA changes this equation by pulling the process owner much closer to the execution of the system. If IT and the process owners fail to account for a different mix of responsibilities, the end user may see operations disrupted, and IT may find itself ill equipped to support the bot due to knowledge gaps in the business process the bot has completed. This is no different than expecting a system admin to understand what an accountant does day in day out, which is not a recipe for success.

Assess Your Automation Maturity

Whether your company has started on an automation journey or not, understanding the expectations of stakeholders can be very important to ensure you design a program that will mesh well with the company culture.

RPA has the potential to shift influence away from traditional IT led technology projects by placing a greater degree of capabilities and responsibility in the hands of business owners. This leads to some important considerations:

1. Will the user-developed bots be viewed as a threat to organizational lines of responsibility?

RPA allows you to incorporate specialized knowledge and business rules into the bot. When your business process is no longer limited by the knowledge that your department possesses, you can expand the domains of work you perform and eliminate handoffs between departments. Reducing information handoffs can lead to fewer errors, higher velocity, and enables you to design process around customer needs and desires rather than the knowledge, skills, capabilities, and level of resources of individual departments. You can only benefit from these improvements if your organization is open to rethinking who does what tasks and how those tasks get done.

2. Will citizen developers be able to acquire the necessary skills to build stable automated processes?

While RPA is considered a low code platform that is very powerful, it still requires technical prowess to do well. Ultimately, you need to ask yourself if you currently have, or can you build, a technically savvy employee base who can easily acquire the skills to build and maintain robust bots. If you are planning to leverage traditional IT resources with the technical chops, do they have the necessary business domain skills to understand business processes to the degree necessary to build bots that integrate well with the workforce and do not remove process employees completely from the equation?

3. Are the citizen developer teams staffed to provide first-line support?

With RPA, one of the most common realizations business teams come to is the level of involvement they need to have to ensure the bot-enabled business environment is stable. We

recommend that process owners serve in the role of bot supervisor, monitoring the completion and quality of work performed in the same way they do for human employees. Well thought out design can ensure that there is a good exchange of information between the bot and human, but this is no substitute for active ownership by the process owner.

If a business team is focused on building bots but not prepared to own the support and first-line maintenance, they can find themselves at a huge disadvantage when it comes to production bot stability. If a bot fails, business owners may not be able to rely on IT for support as they do with traditional systems. Process owners are well versed in the people, departments, and flow of information associated with the automated process. This uniquely positions them to best provide first-line support, but also puts traditional IT support teams at a disadvantage.

4. Are process owners open to optimization and do they possess the vision to reimagine the business process once the human effort and specialized knowledge limitations are no longer a factor?

RPA may require process changes to enable full automation or reduce the occurrence of exceptions. Are your business process steps dictated by external rules, conventional wisdom, or historical precedence of the department? Are process owners open to making changes or will you be forced to automate processes in such a way that leads to unstable bots? These factors can play an important role in your ability to successfully capture the benefits of RPA or win over critics within your organization who are resistance to change.

5. Will process owners and staff view bots as a threat to their jobs or control over the process and outcomes?

Employees feeling threatened by a bot taking their job are one of the most common fears we have seen over the last several years. This fear can be reinforced when leadership either openly or covertly desires to exchange headcounts for bots. Understanding where your organization falls related to this concern is critical to your ability to succeed with RPA. You won't be able to prevent staff from thinking bots are coming for their jobs, but you can design a program that tackles this concern, and provide training and transparency regarding program goals. Companies should build capabilities within the program to address the concern head on through open and transparent dialog, training, and communication about their vision and how automation will create new opportunities for employee growth and increased skills.

6. With much of the RPA work falling into operating and not capital expense, is a new approach to IT budgeting needed to ensure critical IT support capabilities are not shortchanged?

Budgeting is an area that has gotten little attention in RPA circles. Most of the focus has been on achieving ROI and using that savings to fund program growth. Savings tends to get funneled into the platform, licenses, and tools to facilitate RPA, followed by slowing the growth of department budgets as workload increases.

However, RPA requires a very similar commitment for support as other more traditional systems. Leaders tend to overlook the added burden on operational expense budgets in areas such as security, IT operations, and help desk. Many IT budgets are fattened through capital expense work, but much of what happens in process automation may not qualify for capitalization. This can lead to a blind spot in budgeting where additional funding is not allocated because the work does not fall in annual capital planning activities. Therefore, no additional budget is allocated, yet when the number of production bots grow, there is a very real need for IT support but no additional money to adequately staff support teams. Without proper funding, the effort to support bots may fall on business teams who are not prepared to absorb this work.

7. HR and labor issues can play a role in an organization's ability to transform how work is done and who does it.

Organizations that rely on union workers can be prohibited by labor contracts from changing job descriptions, moving existing employees to new job categories, or reducing headcount. Some questions organizations will need to tackle are:

- When bots replace work, will there be labor union and legal issues in replaced jobs?
- Will the introduction of new roles in RPA, such as bot supervisor or digital ambassador, be forced into existing job titles and descriptions due to the expense of creating new job titles and completing market compensation surveys?
- Will there even be good data available to determine the right mix of title, compensation, and responsibilities for these new RPA-centric roles?

Despite the potential pitfalls, many organizations still can benefit from bots serving as a force multiplier, enabling workers to keep up with increased demands, rather than just a cost saver. RPA in a tight labor market can help fill the gap created by an inability to bring in additional resources to cope with growth in demand.

Do program goals align with organization receptiveness?

What are the goals of the program sponsor and is the organization receptive to the level of change necessary to achieve program goals? One of the common sources of friction with automation programs occurs when the program sponsor is looking for one type of outcome or benefit and the organization is focused on delivering something else. Early on in many automation programs, leaders were focused on pure cost savings, expecting whole jobs to be replaced by bots. Not only does this run counter to the capabilities of RPA and violate prudent safeguards, most process owners are not receptive to the wholesale replacement of humans with bots.

In the interest of Segregation of Duties (SOD), it is good practice to provide bot credentials with narrow access based on the policy of least privilege rather than very broad access, as is the case with many human employees. If there is a penetration to the platform, a narrow credentialing approach will limit the damage prior to detection. This security best practice runs counter to the desire to build a bot to replace whole jobs.

Assuming your organization is focused on job takeout and prepared to allow bot credentials with wide access permissions, to be successful would require restructuring the jobs of remaining employees to offload their tasks that can be automated and assume the tasks that cannot. This presents a few challenges, such as:

- Does the employee possess the skill to complete the new job requirements?
- Is the company able to restructure a job description without violating labor laws or union rules?
- Does the reclassed job create a more enriching and rewarding experience for the employee or will it lead to higher turnover?
- Does the consolidated tasks violate separation of duties policies?
- Does the new job introduce new control risks?

There is no one size fits all approach to a Robotic Operating Center of Excellence. The value of assessing the readiness of your organization is to help identify the source of challenges inhibiting progress of your existing program, and in gaining insights to what preconditions you can address up front to minimize risk and ensure high adoption of RPA. A good understanding of the needs and attitudes of all stakeholders will arm you with the necessary information to design a program with the right level of centralization, governance, capabilities and controls.

The Value of an Implementation Partner

RPA is an emerging technology that is still quite new to most organizations. Some companies begin down the path of RPA adoption without the aid of a partner. Inevitably they run into challenges that slow progress and create a number of stops and starts that can lead to a crisis of confidence with their stakeholders.

Much of how organizations choose to approach their RPA implementation is rooted in their cultures, but it usually follow one of two paths. There are organizations that never bring in help and do everything themselves with custom applications and internal resources. However, over time this can lead to a sprawling system footprint with high maintenance costs and lack of interoperability. There are also organizations that leverage outside help with specialized expertise. This approach is typically most helpful for specialized projects, such as ERP implementations and emerging technologies.

Whether they leverage help for analysis and design, or for the full build, there are a few common considerations that can be taken into account when making an informed decision about how to execute on an automation strategy.

Technology

Is the technology you are trying to adopt emerging, as is the case with RPA, or mainstream, such as an ERP system? Early in the lifecycle of technologies, it can be difficult to stay abreast of all the changes in the product landscape. As part of the value they add, a partner invests the time to stay ahead of the emerging tech curve and has a deep understanding of new, complementary technologies. Partners can leverage their experience to help you make good choices about where to focus your efforts and where to hold off based on the maturity of the technology. Understanding where to invest time and effort through the help of a vendor can save you tremendous effort by avoiding getting tied into a platform vendor that struggles to adapt to the fast-evolving market.

New technologies also require unique and hard-to-come-by expertise. A good partner can bring ready-to-leverage knowledge developed over a long period of time, in many different environments, as well as hard-fought lessons learned to benefit your program. There's no better way to improve your chances of success than to learn from the mistakes of your competitors rather than struggle through the same challenges that somebody has already solved.

Timeframes

Do you have time to learn, or do you need quick results? One of the greatest benefits of bringing in a partner is the ability to accelerate your program. Many companies find that by leveraging a partner to help the launch, it serves to jumpstart the program. Partners bring expertise in numerous disciples, honed over many cycles that translate into frameworks that help you execute on your goals in an expedited fashion. Some areas where a partner can help with RPA include:

- **Proof of concept**
- **Pilots**
- **Center of Excellence**

- **Bot development**
- **Operations support**

A good partner can efficiently help you overcome challenges that are new to your organization because they have solved these same issues many times before. They can also help you to think through tactical and strategic areas of focus so work you do now can be built upon as your program scales.

Specialized Knowledge

Partners can be versed in many specialized areas of knowledge that are costly to develop and maintain internally. At the beginning of an automation program, the necessary skills to launch the program will be different than what is needed later on for maintenance. A partner can plug skills gaps for those specialized areas that are needed in the short term, leveraging their expertise to maximum effect, while you are gradually developing the skills and capabilities your organization will need in the long term.

The goal of a good partner should be to provide you with a path to accelerate progress, avoid pitfalls, and assist in transitioning ownership and operations to those organizations that wish to own them in the long term. Some typical areas of specialized knowledge a partner can provide include:

- **Program design**
- **Specialized technical expertise in RPA**
- **Health checks**
- **Platform evaluation and selection**

- **Best practices**
- **Health checks**
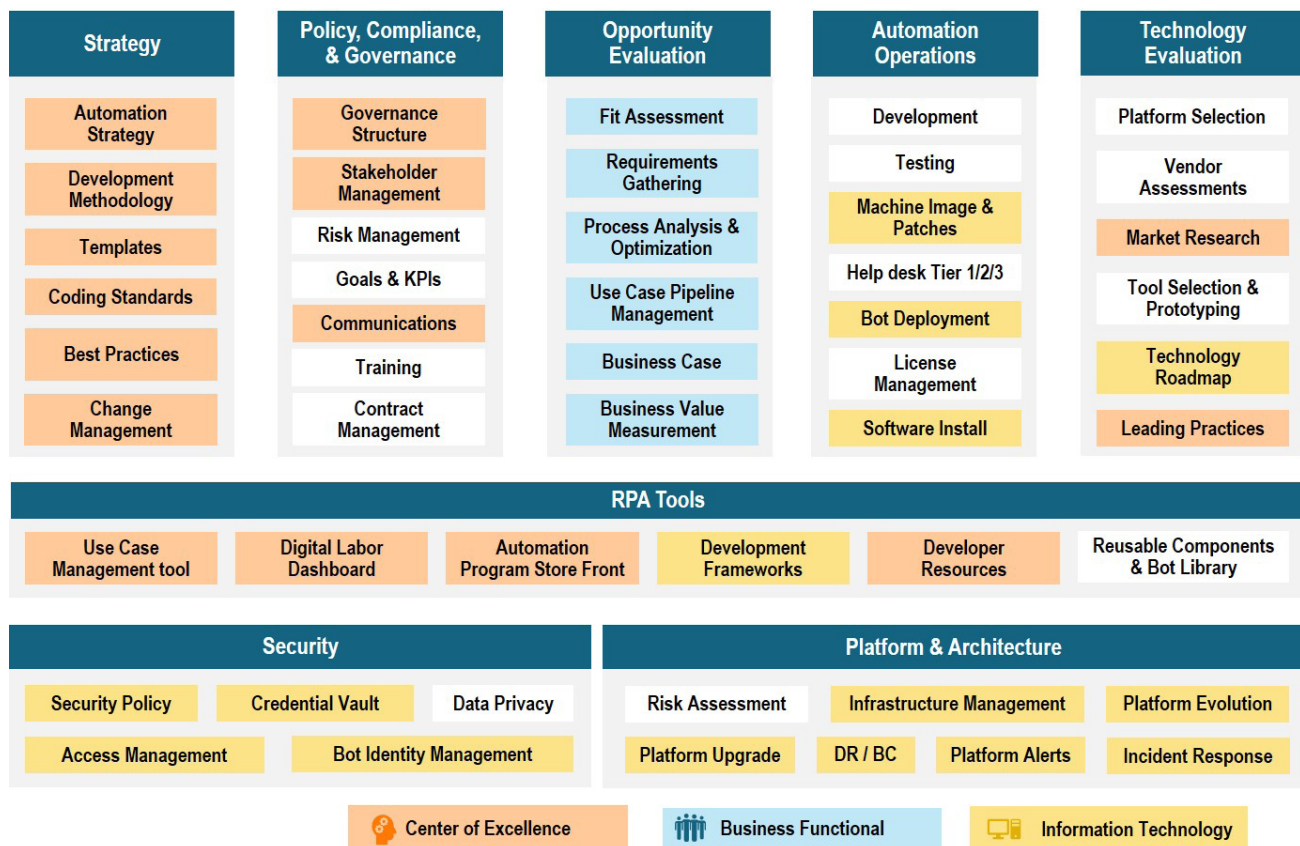- **Program maturity**
- **Cyber and security**

This automation capabilities model illustrates the scope of knowledge areas that can come into play with a mature program. It's clear there is a broad list of focus areas that can benefit from experience and specialized knowledge, and building skills in each of these competencies can be challenging for many organizations. Specialized knowledge that consultants bring to an engagement can be an excellent solution to establish a foundation for success in your program.

INTELLIGENT AUTOMATION CAPABILITY MODEL

Strategy	Policy, Compliance, & Governance	Opportunity Evaluation	Automation Operations	Technology Evaluation
Automation Strategy	Governance Structure	Fit Assessment	Development	Platform Selection
Development Methodology	Stakeholder Management	Requirements Gathering	Testing	Vendor Assessments
Templates	Risk Management	Process Analysis & Optimization	Machine Image & Patches	Market Research
Coding Standards	Goals & KPIs	Use Case Pipeline Management	Help desk Tier 1/2/3	Tool Selection & Prototyping
Best Practices	Communications	Business Case	Bot Deployment	Technology Roadmap
Change Management	Training	Business Value Measurement	License Management	Leading Practices
	Contract Management		Software Install	

RPA Tools

Use Case Management tool	Digital Labor Dashboard	Automation Program Store Front	Development Frameworks	Developer Resources	Reusable Components & Bot Library

Security			Platform & Architecture		
Security Policy	Credential Vault	Data Privacy	Risk Assessment	Infrastructure Management	Platform Evolution
Access Management	Bot Identity Management		Platform Upgrade	DR / BC Platform Alerts	Incident Response

🔗 Center of Excellence   👥 Business Functional   🖥 Information Technology

Domain Knowledge

RPA got its name because it is very tightly coupled with the business process. What separates RPA from traditional automation-using systems is that it completes the business process in the same way a human does, whereas traditional IT systems projects tend to replace the business process wholesale with an end-to-end system. The implication is that business-specific domain knowledge is highly important to building a robust and stable bot.

RPA lives and operates within the existing business and system environment rather than replace it. For example, a bot completing a journal entry requires an understanding of accounting, what a journal entry is, and how to ensure accuracy and quality. Traditional systems projects do not require the same level of understanding

of the existing business process because the new system replaces the existing process. Choosing a business partner who understands both the business domains you are looking to automate as well as the unique culture of your organization are key factors in pulling off a successful RPA effort.

Standard Approach vs. Tailored Approach

Our view is an approach leveraging well-defined methodologies, templates, and best practices that are tailored to your unique organization is preferable. Standardization of templates and methods is good and can serve as a springboard, but these tools are best utilized as an accelerator and not a one-size-fits-all approach. A good partner will listen to your needs, pain points, goals, and challenges, leverage their experience, and provide you with custom tools and tactics to deliver the business value you require.

STEPS TO CREATE YOUR RPA COE
ESTABLISH YOUR PROGRAM

3. CAPABILITIES & TOOLS
Identify program capabilities, tools, and functions necessary to delivery on your vision.

4. PEOPLE & COMMUNICATIONS
Identify roles, build your team. Fill skills gaps through training and staffing. Communicate to the organization.

2. GOVERNANCE & OPERATIONS
Select a Governance and Operating Model compatible with your vision and goals..

5. OPPORTUNITY ENABLEMENT
Establish bot development lifecycle methodology, including opportunity collection and assessment.

1. VISION, STRATEGY, & PLANNING
Assess your automation readiness, Identify an executive sponsor, and identify your goals for automation.

6. METRICS
Identify financial and nonfinancial KPIs that align to your goals and incent long term thinking.

But be cautious. While there are ways to accelerate progress, a good partner will provide you with objective advice on what is realistic in terms of delivering a program to production. Be wary of a partner who simply agrees to deliver any scope in what seems like an overly demanding timeframe. The goal of any program should be to deliver value with acceptable quality. All too often, promises that are too aggressive will result in cost overruns, missed deadlines, and rework. A good partner will assist in helping you find the right balance between scope, quality, cost, and schedule.

Focusing on establishing the right program foundation of knowledge and capabilities will pay far more dividends than suffering through the question of which platform is the best. Some common partner strategies we have seen companies take include initiating a program with the client that takes on the challenge of scaling things out across the enterprise. Still, others rely on the partners to build and scale so that the client can stay focused on their regular "day jobs." Whatever strategy you employ, you are more likely to see greater value in a shorter timeframe by leveraging a partner.
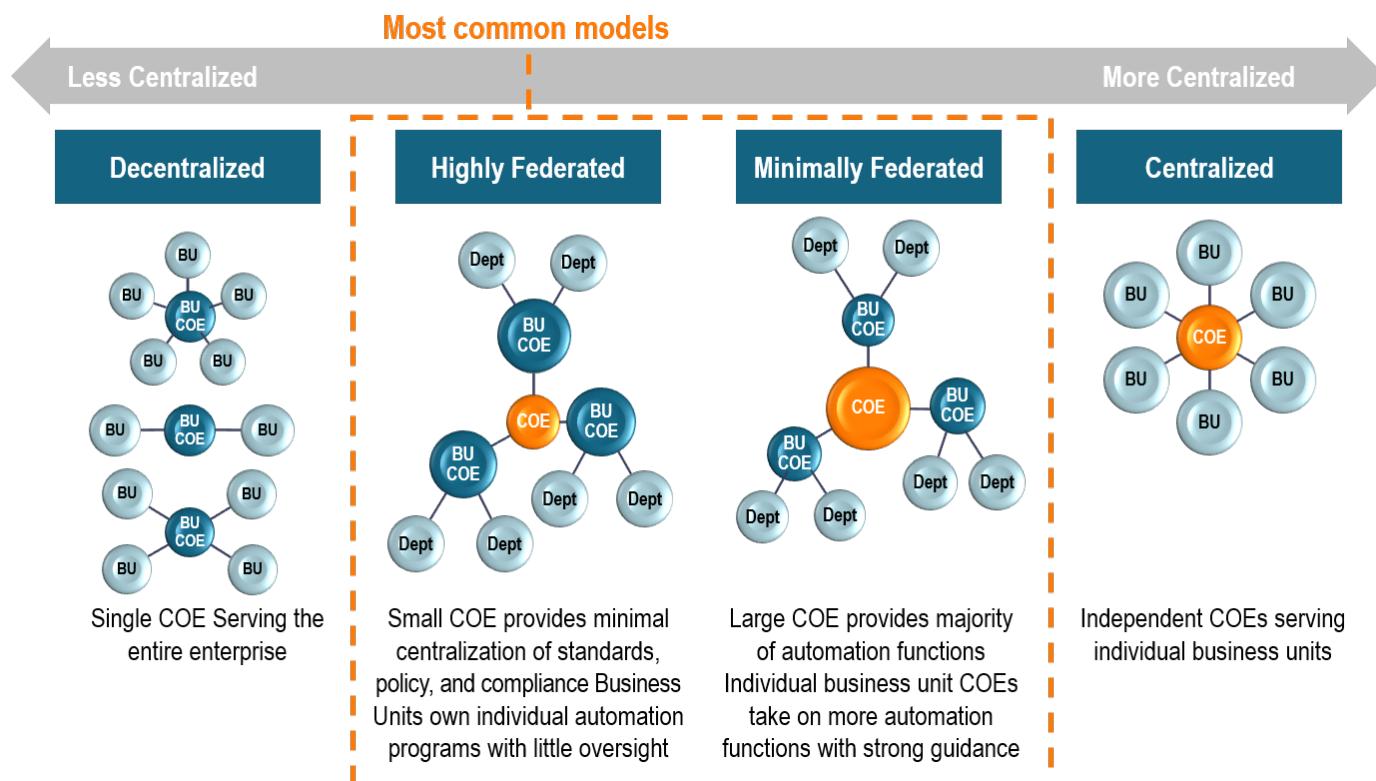
Decide On a COE Structure

Choosing the right program structure for your organization and culture is an important consideration that can either be a catalyst for growth or an impediment that leads to friction and dissatisfied stakeholders.

As with most of the program design decisions organizations will tackle when establishing their RPA programs, there is not a universal best structure. However, the right one won't clash with the culture and will support the expectations, risk tolerance, and compliance needs of the organization. Here are a few general considerations that can help you make a good choice.

Centralized versus Decentralized Control

When designing your program, it's good practice to proactively decide whether you want a highly centralized or highly decentralized program. While there is not a perfect level of control, there are certain guidelines that apply fairly broadly to most organizations irrespective of their cultures and management structure.

PROGRAM MODELS

Decentralized	Highly Federated	Minimally Federated	Centralized
Single COE Serving the entire enterprise	Small COE provides minimal centralization of standards, policy, and compliance Business Units own individual automation programs with little oversight	Large COE provides majority of automation functions Individual business unit COEs take on more automation functions with strong guidance	Independent COEs serving individual business units

Compliance with Regulations

We recommend, at a minimum, to consider centralizing the governance of anything that applies consistently across your organization, such as adherence to external regulatory mandates (General Data Privacy Requirements [GDPR]) or development methodologies affecting critical processes and systems impacting Sarbanes Oxley (SOX) compliance. Ensuring good compliance with external regulations can find their way into governance, development methodologies, required artifacts and checkpoints prior to deploying bots to production.

## Shared Capabilities and Resources

Another area that can drive the level of centralization is with developing shared capabilities (i.e. providing coding best practices, reusable code libraries to carry out common activities such as securely accessing a credential vault, error logging, alerting, and logging business value to a corporate automation dashboard). Centralizing the responsibility for creating and maintaining the things all stakeholders need to do can have broad benefits in terms of cost, efficiency, risk mitigation, and compliance. At a minimum, stakeholders will appreciate how these services and capabilities make their lives easier, and at a program level, the company will be able to ensure that there is a way to maintain minimum standards and enforce enterprise-wide policies.

Guardrails versus Central Control

When evaluating how your automation program should be organized, we advise clients to have a bias toward developing guardrails over strict controls. This doesn't mean you should not have standards and requirements built into governance, but it does recognize the practical consideration that policing the quality of every bot built within the organization is not realistic for most, and is likely to lead to bottlenecks in your bot development pipeline. Some key areas to consider include:

1. Center of Excellence: Gatekeeper or Enabler

Serving as a gatekeeper might provide a sense of security that bots will remain in control, but this tends to be more of an illusion rather than actually achieving the goal of quality and compliance. We recommend structuring the program to enable stakeholders to be successful by providing them with guidelines, knowledge sharing, and minimum requirements that will enable them to easily understand the expectations the organization has for quality, security, risk, and ROI. Providing stakeholders with rules of engagement that are easy to understand is the foundation for frictionless governance. This will enable everyone to understand their role and responsibilities and provide them with the resources necessary in order to easily comply.
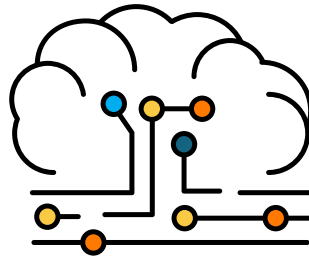
2. Control vs Guidance

Are there real internal or external factors that require specific controls be put in place, and what is the consequence if those requirements are not met? You want to centralize controls for things that are truly critical to mitigate risks, but whenever possible simplify governance to help improve adoption and the velocity of your program. For example, are you attempting to automate external financial filings in a public company? Ensuring that bad actors do not exploit non-public financial information may be a good reason to require specific controls to be incorporated in a bot in order to increase security.

3. Culture

What will work in your culture? Is your company a command and control organization, or very decentralized and entrepreneurial? Whichever end of the spectrum you fall, do your best to design a program that will integrate well while still ensuring your program goals can be achieved.

One example would be if your company is highly security conscience with end user computers locked down with strict firewall settings controlling the flow of information into and out of the company, you might encounter obstacles building bots in a decentralized manner. Simple things such as adjusting a screen resolution to ensure the bot can run successfully may be restricted and global security policy may prohibit end users from adjusting these settings.
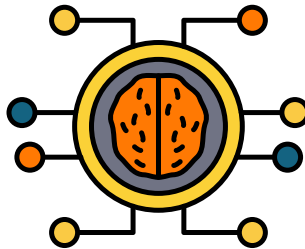
Another example we have seen in some companies are end-user machine policies that automatically screen lock an idle machine after 15 minutes. This is a common end user desktop policy that is sometimes applied to the virtual machines where the bots live. In practice, these VMs act more like servers, which are generally governed by a different set of policies than user desktops. However, if the VM operating system used is a Windows desktop, it may trigger corporate desktop policies to be applied to these machines by default. The screen lock policy is intended to secure unattended workstations that users forget to lock prior to leaving their desk, but the impact in the RPA environment is that the bot may fail to complete its task when the screen is automatically locked.

These VMs are not physical machines sitting unattended on employee desks, but virtual environments that exist in a secured data center that is only accessible by system administrators. So the policy aimed to reduce risks introduced by end users is impeding the progress of a program intended to drive efficiencies. Essentially the policy is at odds with the program. If the security organization refuses to adjust the policy, the solution bot developers may take is to circumvent the screen lock by simulating screen activity. Common sense would tell you that this approach defeats the purpose of the control, but developers may have no choice to ensure that the bots work properly.

Ultimately, culture will dictate more of how your program will need to be structured than you might expect. Early education of the technology and program goals can help overcome some of this, but you will experience fewer obstacles if you structure your program to mesh with the culture.

Success Criteria for Starting

The idea of a Center of Excellence can sometimes seem like a large, monolithic entity that can feel quite overwhelming to many who are in the early stages of automation deployments within their organizations. The concept of formalizing a program is recognized quite broadly in business and technology circles, many times taking the form of a Center of Excellence.

Certainly there is great value in taking the planning of an automation effort seriously and doing plenty of research to understand best practices for organization, governance, security, and operations. However, when starting out, this does not require the creation of a large new organizational structure. When discussing the concept of a Robotic Operating Center of Excellence with clients, we prefer to focus on the concepts that add value and control risk.
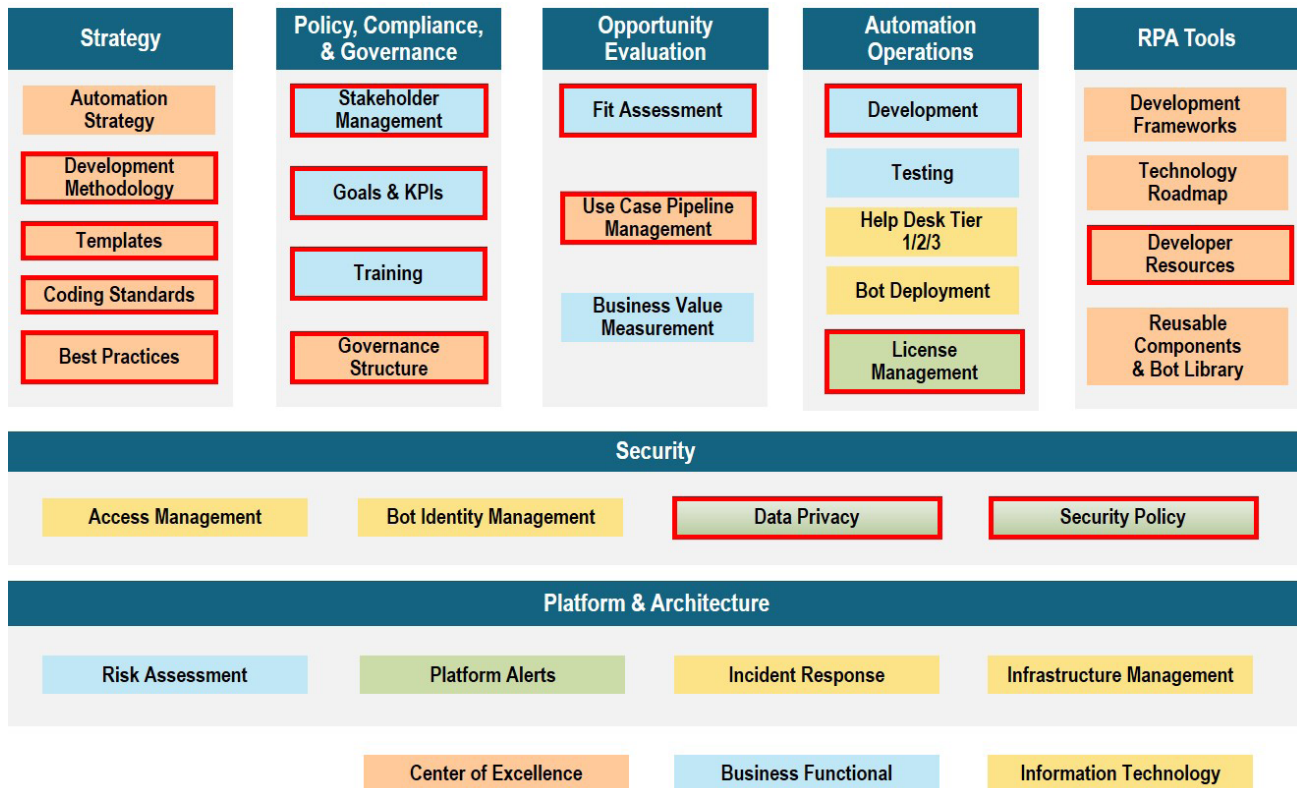
Viewing an RPA program through this lens of capabilities, we help clients navigate the series of options and decisions to arrive at the right mix of centralization, guardrails, and flexibility. Our objective in this process is to help clients identify the baseline set of capabilities, competencies, tools, and resources necessary to achieve their automation goal. Through several activities and workshops, we also help clients to establish a roadmap for future program enhancements. The key steps in this process are:

- Identify the foundational capabilities and tools
- Put capabilities in place to deliver on those needs
- Establish a roadmap to satisfy future needs and growth

The lesson at this stage of program development is to start with the basics of governance, policy, security, and operations. Define critical COE services to enable at the start, and once you have this foundation in place, it's important that you adapt to the evolving demands of stakeholders.

On the following page, we illustrate the capabilities of a newly formed Center of Excellence with some key day one capabilities highlighted. The others, while still important, can be developed as you transition towards a higher level of program maturity.

CLIENT TAILORED INTELLIGENT AUTOMATION CAPABILITY MODEL

Strategy	Policy, Compliance, & Governance	Opportunity Evaluation	Automation Operations	RPA Tools
Automation Strategy	Stakeholder Management	Fit Assessment	Development	Development Frameworks
Development Methodology	Goals & KPIs	Use Case Pipeline Management	Testing	Technology Roadmap
Templates	Training	Business Value Measurement	Help Desk Tier 1/2/3	Developer Resources
Coding Standards	Governance Structure		Bot Deployment	Reusable Components & Bot Library
Best Practices			License Management	

Security

Access Management	Bot Identity Management	Data Privacy	Security Policy

Platform & Architecture

Risk Assessment	Platform Alerts	Incident Response	Infrastructure Management

Center of Excellence	Business Functional	Information Technology

Some key things to consider for growth beyond the initial launch include:

1. Plan for operational support.

One of the biggest mistakes an organization can make is to underestimate the operational demands of RPA. RPA has been promoted as a quick way to turbocharge your business processes by eliminating manual work, but the reality of what it takes to support and scale a program can take some companies by surprise. Bots run on infrastructure and leverage a number of tools and applications to complete the tasks of the business process. That infrastructure is dynamic, sometimes expansive, and can be very fluid, which will affect the environment in which the bots work.

Maintaining the health of bots takes planning and effort. Managing infrastructure and responding to bot issues will become a full time job. One way to understand this need is to think about the role a tiered help desk plays in assisting with issue triage and resolution for more traditional areas of business. RPA is no exception in this regard:

- Virtual machines will need to be provisioned and software installed and patched.

- Bots will fail to run and require triage.

- RPA platform licenses will need to be managed.

- Bot code will need to be deployed between environments.

- Bot credentials will need to be provisioned and managed throughout the lifecycle of the bot.

All of these activities will require attention, and the effort to support them can lead to major delays in response times if you haven't planned for them. A good strategy is to embed digital and RPA into your organization in a more significant way rather than think of it as a separate operation that exists in isolation. For example, one way is to leverage a traditional help desk support model, with tier one assistance handled by the digital worker supervisor for day-to-day issues, and skilled RPA resources handling tiers two and three. The help desk can be used to ensure stability and support stakeholders.

2. Listen to stakeholders and be prepared to adapt and reinforce best practices that are lacking.

One good practice is to track reported issues and complete root cause analysis to gain valuable insight as to where you need to adapt and improve your program. Use these insights to address the most immediate issues impeding your progress, and keep stakeholders informed about future developments in order to maintain support and confidence of the teams who have embraced automation.

3. The early adopters of RPA in your firm can be your best advocates, but they can turn into your biggest critics if their experience is subpar.

As you establish and enhance the automation program, the first RPA users will feel the growing pains. While learning how RPA will best integrate into your organization, you may encounter rigid processes and resistance from internal support teams that are responsible for various functions your program relies on to operate. To successfully integrate RPA, it may be necessary

to make changes in program processes in order to ensure that you adhere to policies and meet expectations of various stakeholders. The goal is to work toward a high degree of stakeholder engagement and strive to provide the most responsive experience possible for these early adopters. This is critical to maintaining support and confidence of the teams who have embraced automation.

4. Implementing tools to support the automation capabilities of your program can be very helpful at the start.

For example, managing use cases in a use case lifecycle application can be valuable and serve as a key enabler for your program. However, the tools that you employ to deliver these capabilities do not need to be systems nor do they need to be overly complex. You can get started with tracking use cases by utilizing spreadsheets, evaluate the technology with a simple questionnaire, and calculate an estimated ROI using a spreadsheet template. We recommend focusing your efforts on designing these capabilities and start with very simple tools to manage and deliver them. Over time, you will be able to learn what works best in your environment and enhance the program with more robust tools and applications. Starting simple will give you the opportunity to learn what works and limit expensive tool rework.

There is no single approach for structuring your program that will be right for every organization. Finding the perfect balance between structure and flexibility will be the key to its success. It's important to recognize that the value of a structured program is the support it provides to stakeholders. One that is well designed helps them to understand how to access resources and provides guardrails to ensure risks are effectively managed. Starting small by focusing on basic governance, policy, security, and operations will ensure your program can gain traction and overcome common obstacles that many experience when starting out. After your Center of Excellence is open for business, make sure you have good metrics and open communication with your stakeholders so you can evolve the program to meet the changing demands of the company.

Roles and Responsibilities

Talking about roles and responsibilities seems like an obvious area of focus. Establishing expectations of skills, expertise, and responsibilities is one of the most basic rules of creating a functional team. Generally, these discussions center on the responsibilities and tasks a particular role should handle. Discussed less often is why this matters.

In the context of RPA, it's important to spend time understanding what types of skills will be needed to successfully enable the capabilities you expect to own within your program and what will be handled by stakeholders. Developing a strategy for how you will acquire those skills should entail whether you already possess employees with the necessary knowledge and skills, or whether you'll train existing employees to fill these new roles. Seeking outside help is an option, but consider developing your existing staff for the responsibilities that will live beyond the initial program establishment. Bringing in a consultant is an excellent way to leapfrog competitors and accelerate your progress early on, but the ideal situation is to set yourself up for long-term success by developing a skilled team to help operate the program. Then, leverage outside resources with specialized skills to enhance the program as you grow.

Roles and Responsibilities are the Foundation of Accountability

It is worth investing extra time to develop well-defined roles catered for robotics, which may entail creating new job titles with a brand new set of RPA-centric duties. One of the most common oversights we see companies make is that they fail to account for the importance of dedicated resources focused on supporting and enabling the automation program, both within the Center of Excellence and within the business teams who own the bots. One thing program owners can do to increase the odds of success is to work closely with stakeholders to set well defined expectations of what everyone will be responsible for, and translate them into a set of clearly defined tasks.
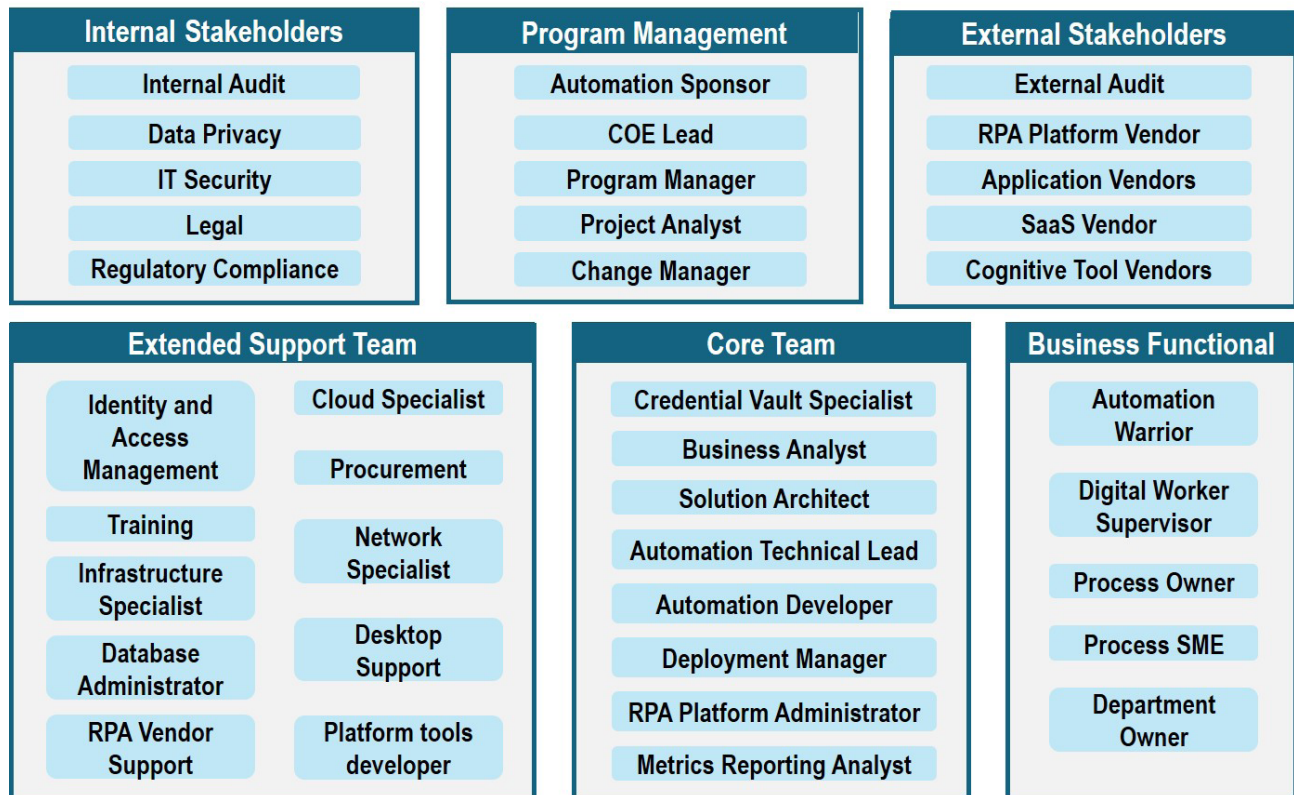
AUTOMATION ORGANIZATION ROLE AREAS

Internal Stakeholders	Program Management	External Stakeholders	Extended Support Team	Core Team	Business Functional
• Internal departments and teams within your organization that govern various functions you need to leverage to build and operate bots. • The primary focus of these teams is to manage and mitigate risk and oversee compliance.	• This is the team of people who have overall responsibility for your RPA program. • They define the policies, guidelines, tools, procedures under which your RPA program will operate. • This group is the public face of the RPA program.	• External departments, organizations, and companies that govern the various functions you need to build and operate bots. • This group is primarily external to your organization but have influence over your ability to operate.	• Teams and resources within your organization with specialize knowledge necessary to support various aspects of your program. • Generally these are skilled resources providing support and input to your program on a part time basis.	• Resources aligned directly to your program with specialized knowledge necessary to successfully conduct development and operations for RPA. • Generally these are highly skilled staff level workers assigned full time to your program.	• Primary group of stakeholders most directly impacted by your RPA program. • Generally these will be employees of departments whose business processes are affected by the introduction of bots. • These are the end users of the RPA program.

Compared with traditional systems, RPA is unique in that process owner involvement is more important to the success of bot operations. This is a critical point since many process owners may not be accustomed to playing such an active role in both conceiving the idea, and running the day-to-day automated processes. However, a key to success is to have process owners serve as the first line of defense on monitoring bots. We have found that this business-focused commitment may require new job descriptions that don't currently exist within your organization. While RPA is new, companies should anticipate the need for support from various teams that support older technologies. This is necessary to ensure that there is a stable operation in place.

This graphic illustrates the various roles within a mature automation program, and shows how they are organized between the various stakeholder groups. While there are many traditional positions depicted on the chart, many of these roles will include new responsibilities requiring RPA-specific skills. One such position is a Digital Worker Supervisor. Serving as the first line of support, their primary role is to manage the bots and ensure that the business process is not interrupted when the bot "calls in sick."

AUTOMATION ORGANIZATION ROLES

Internal Stakeholders
- Internal Audit
- Data Privacy
- IT Security
- Legal
- Regulatory Compliance

Program Management
- Automation Sponsor
- COE Lead
- Program Manager
- Project Analyst
- Change Manager

External Stakeholders
- External Audit
- RPA Platform Vendor
- Application Vendors
- SaaS Vendor
- Cognitive Tool Vendors

Extended Support Team
- Identity and Access Management
- Training
- Infrastructure Specialist
- Database Administrator
- RPA Vendor Support
- Cloud Specialist
- Procurement
- Network Specialist
- Desktop Support
- Platform tools developer

Core Team
- Credential Vault Specialist
- Business Analyst
- Solution Architect
- Automation Technical Lead
- Automation Developer
- Deployment Manager
- RPA Platform Administrator
- Metrics Reporting Analyst

Business Functional
- Automation Warrior
- Digital Worker Supervisor
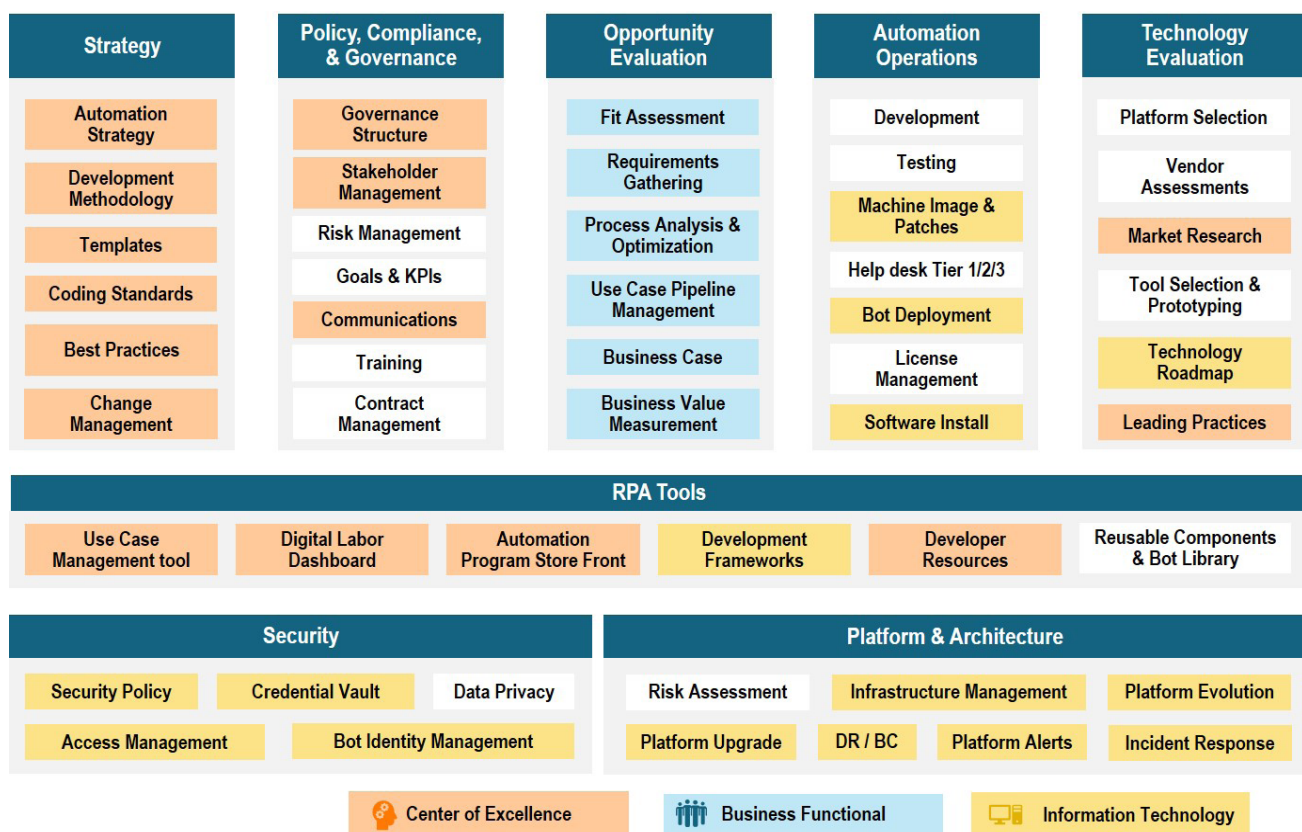- Process Owner
- Process SME
- Department Owner

As RPA begins to play an increasing role in more critical business functions, such as the monthly accounting close, treating the bot platform as a mission critical system will be prudent to ensure that the flow of business remains uninterrupted.

Identify the Roles

A good way to start with defining the staffing needs of your program is to examine the list of capabilities you identified when developing your plan. This list that you intend to enable within the program, and broadly throughout the organization, will point you to the roles you will need to staff.

Here, we illustrate the capabilities of a mature automation program. However, your program will focus on those capabilities that you start with and address the resources needed in order to deliver those starting focus areas.

MATURE AUTOMATION PROGRAM

Strategy	Policy, Compliance, & Governance	Opportunity Evaluation	Automation Operations	Technology Evaluation
Automation Strategy	Governance Structure	Fit Assessment	Development	Platform Selection
Development Methodology	Stakeholder Management	Requirements Gathering	Testing	Vendor Assessments
Templates	Risk Management	Process Analysis & Optimization	Machine Image & Patches	Market Research
Coding Standards	Goals & KPIs	Use Case Pipeline Management	Help desk Tier 1/2/3	Tool Selection & Prototyping
Best Practices	Communications	Business Case	Bot Deployment	Technology Roadmap
Change Management	Training	Business Value Measurement	License Management	Leading Practices
	Contract Management		Software Install	

RPA Tools

Use Case Management tool	Digital Labor Dashboard	Automation Program Store Front	Development Frameworks	Developer Resources	Reusable Components & Bot Library

Security

Security Policy	Credential Vault	Data Privacy
Access Management	Bot Identity Management	

Platform & Architecture

Risk Assessment	Infrastructure Management	Platform Evolution
Platform Upgrade	DR / BC	Platform Alerts	Incident Response

🧑 Center of Excellence   👥 Business Functional   🖥 Information Technology

For example, if you are planning to complete custom training to augment the free online training from your RPA platform vendor, you will need a professional learning and development resource who can help you design and deliver this program in an effective manner. However, if you feel this is not a critical area to support internally, you can plan to bring in help to address your training needs.

An example of this approach would be:

- Evaluate each capability and identify those you plan to support

- Establish an owner for each capability, including whether you plan to deliver it with external help

- Document the list of responsibilities, tasks, skills, and deliverables and how those may align to a role

- Examine your existing employee base to find those who either possess the necessary skills and experience, or have transferable skills and an interest in automation

Once you identified the basic set of foundational capabilities and the roles necessary to support these functions, you can turn your focus to addressing any areas that are unique to your organization. Beyond the common core of capabilities, every program will have a unique set of challenges that will dictate where the focus needs to be to drive success.

However, take your time plugging these in as you have the capacity to focus your attention to defining them, and roll them out in a well-planned manner. Get the program running smoothly, and this will free you up to successfully build on that foundation rather than rushing from one fire drill to another.

If you are always addressing urgent issues because you are not staffed appropriately for success, this will create dissatisfaction with stakeholders, ding your credibility, and not allow you enough time and space to figure out how to effectively build your program. Ultimately, start off with a basic approach. There will be certain key roles that will enable your program in the early phases. Focus on establishing those first, and that will provide you with the ability to carry out the most common and important things needed to operate.

Critical Enablers

While there is a lot of information available to learn how to create and build an automation program, there is less attention paid to the subtle factors that can make or break it.

We refer to these focus areas as critical enablers because they make all the difference. Here, we share some thoughts about why paying special attention to the critical enablers will pay dividends throughout the life of your automation program.

Security

When starting an automation program, it is important to establish a good security strategy as one of the first actions you take. Your RPA platform theoretically has access to your entire infrastructure that supports business processes, so it is critical to take basic precautions and ensure that the platform itself is secure. It goes without saying that you must safeguard the platform so that it cannot be accessed by bad actors, but with RPA, there are other security challenges that do not get as much attention as with traditional system development.

One of the benefits of RPA is the over-the-top nature of how it works. There is no need for integration requiring APIs or other complexities. Simply provide the bot with an account to access a system and train it to log on to complete the work. However, it only functions if you can get the profiles and IDs the bot needs to login to each system used in the business process. This had led companies to underestimate the security challenges with bot credentials. When organizations do not plan for how to handle identity and access management, they quickly learn that internal processes may not adapt very easily to supporting bots.

Some important questions all companies will face in bot identity management include:

- What type of account should be used to provide bot access, service accounts, end user accounts, etc.?
- Once an ID is created for the bot, what is the process for providing access to all the systems? In large organizations, there may be thousands of systems, all with unique and often manual processes to grant access.
- Some systems require self-registration for access, but bots are unable to self-register and should not be trained to request or renew access.
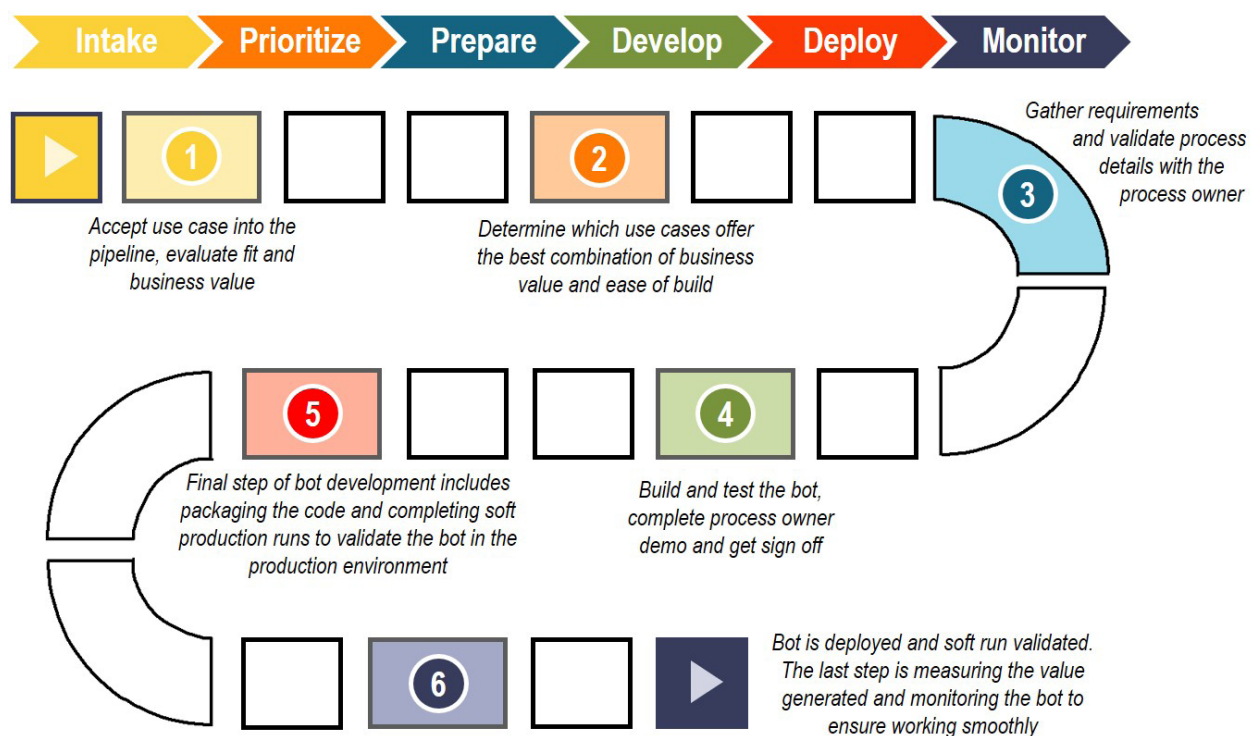
MATURE AUTOMATION PROGRAM

Development Governance and Approach

The second aspect of establishing frictionless governance is in the development methodology. This is the process you plan to follow to take ideas from inception to production. Much of the traditional focus of development centers on the question about whether to use Waterfall or Agile. However, when considering a development methodology, we advise clients to focus on defining key activities, artifacts, and approvals as the foundation of governing bot development. The process of developing bots works very well in an Agile/Scrum model, but due to the rapid growth capabilities of RPA, any methodology will work fine.

Above, we illustrate a simple six-step model for developing bots. What is not depicted in this graphic is the concept of key artifacts and approvals.

Coupled with a solid development process is a clear set of key activities to be completed, approvals and other controls to be satisfied, and important documentation and artifacts to create and retain. The combination of a process and governance checklist forms the basis for a clear approach to delivering bots from idea to production.

A customized approach and governance checklist ensures that important best practices are present, as well as incorporating any organization-specific requirements. Defining these important program policies up front will provide a clear set of guidelines about what is expected from bot developers, as well as providing any instructions they will need to ensure that everything is done completely and correctly. One main benefit of laying out the process is to educate stakeholders on their responsibilities and the responsibilities of the Center of Excellence. Doing so will enable everyone to proactively plan for everything they need to do to avoid pitfalls, delay, and frustration.

Below is a sample checklist outlining all the steps and actions necessary for your organization.

RPA Governance Checklist

5/41 completed

☑	Task	RACI			
	Use Case Intake	**Process Owner**	**Program Manager**	**Development**	**Center of Excellence**
X	Validate Business Value (Hours/$ saved or avoided)	A	C		R
X	Identify Impacted System(s)	A	I	I	R
X	Confirm Bot Certified System Check	C		I	R/A
X	Identify Process Owner/SME	A	C	I	R
X	Identify Process Frequency	A		I	R
	Confirm current process documentation exists	A		I	R
	Approval of Use Case	**PO**	**PM**	**DEV**	**COE**
	Digital Project Manager approval		A		R
	Process Owner approval	A			R
	Use Case meets minumum business value criteria	C	C		A
	Assign use case to development channel (i,e. development owner)	C	C	R	R
	Developer assigned		A/R	I	I
	Type of bot selected	C	I	I	A/R
	Digiital Program (COE) sign off	I	I	I	A
	Added to roadmap with delivery month target	I	A	I	R
	Identify relevant internal and external compliance controls (e.g. SOX, HIPP	R	A		I
	Security	**PO**	**PM**	**DEV**	**COE**
	Use case created	I	A	I	R
	Populated systems matrix	C	A	I	R
	Determine data classification	R	A	I	I
	Determine method for sensitive data management	A	I	R	I
	Ticket submitted for Bot IDs	R	A	I	I

People and Mindset

No guide about creating an automation program would be complete without dedicating some time to the issue of people. While your executive suite can say, "Yes" to the automation program, individuals at many levels throughout the organization can say, "No" to RPA. This resistance can manifest itself in explicit, as well as subtle ways. Overtly, a security team can simply refuse to provide bot credentials until their concerns are addressed. Subtly, a process owner or the person completing the day-to-day development can derail RPA progression by simply not suggesting any use cases, or sharing that the manual method is too dependent on judgement rather than defined business rules. Generally, department leaders are reluctant to overrule these assertions from staff because they typically do not have first-hand knowledge of the processes and rely on the judgement of their staff.

Recognizing the importance of mindset requires you to trust that the actions you take to promote an automation first mindset will lead to a positive outcome, even though you may not be able to measure a return on each action. Mindset is subtler than a simple metric. Creating the right digital first culture is one of the most important things you can do to improve the odds of success.

A tendency to oversimplify the approach to automation by looking for concrete examples and actions to take misses the point of mindset and the impact it has on your ability to transform an organization. An automation program can greatly benefit from investing in change management with a good dose of communication and education.

Here are the two big common themes we share with clients:

1. Continually Promote RPA Evangelism

Senior leaders play an important role in creating a vision of the future and help employees see how their day-to-day work life will be improved through the digital transformation the organization wants to achieve. Highlight digital program goals and successes, such as individual or team accomplishments at all-hands meetings and in other communications, or cultivate the digital innovation mindset by building accountability around nontraditional factors that measure engagement rather than just results or returns. This is important to help employees understand that they will be rewarded for thinking differently, which is at the root of all digital transformations.

Working with business teams to listen to their concerns and ensure the program is addressing them will help develop trust and speed adoption of RPA. However, leadership cannot build the

digital culture alone. To amplify and reinforce the message of digital mindset, it is far more effective to leverage the help of a network of champions throughout the company who already have the trust of employees because they are part of the same local team. This grassroots network of digital warriors can magnify your voice and ensure that your message is getting out there in a consistent and sustained way.

2. Create Accountability for Promoting a Digital Mindset

One of the most common pockets of resistance to change we see in organizations are the middle managers, who can often be overly invested in the status quo, the enemy of digital transformation. RPA has the power to upend the way work has been done for decades and, more significantly, change how companies are organized. Once leaders realize that RPA removes two of the most significant barriers to transformation, the delivery of products and services can be redesigned around customer preferences and not the capabilities of the company to deliver those services.

Anticipate this resistance, and work to educate and incent employees and process owners to adopt the digital first mindset. Take this opportunity to explore how RPA can breakdown silos and reimagine the organizational structure. Bring managers on this digital journey and show them how they will be part of the new organization.

While there are several things that are important for the success of an automation program, we feel security, a development methodology designed to promote frictionless governance, and the digital culture that starts with how people think are among the most important. Undertaking a digital transformation supported by a Robotic Operating Center of Excellence will have a different set of goals and challenges for every business, but developing a strategy and vision for your organization is the first step in the journey to becoming a digital organization.

It's important to emphasize that a COE is not needed on day one, but developing a strategy and vision for your organization is an important first step. By leveraging the key principles outlined in this guidebook to help you establish the right capabilities, infrastructure, and support model, this will ensure you achieve success and gain the most out of your RPA program.

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