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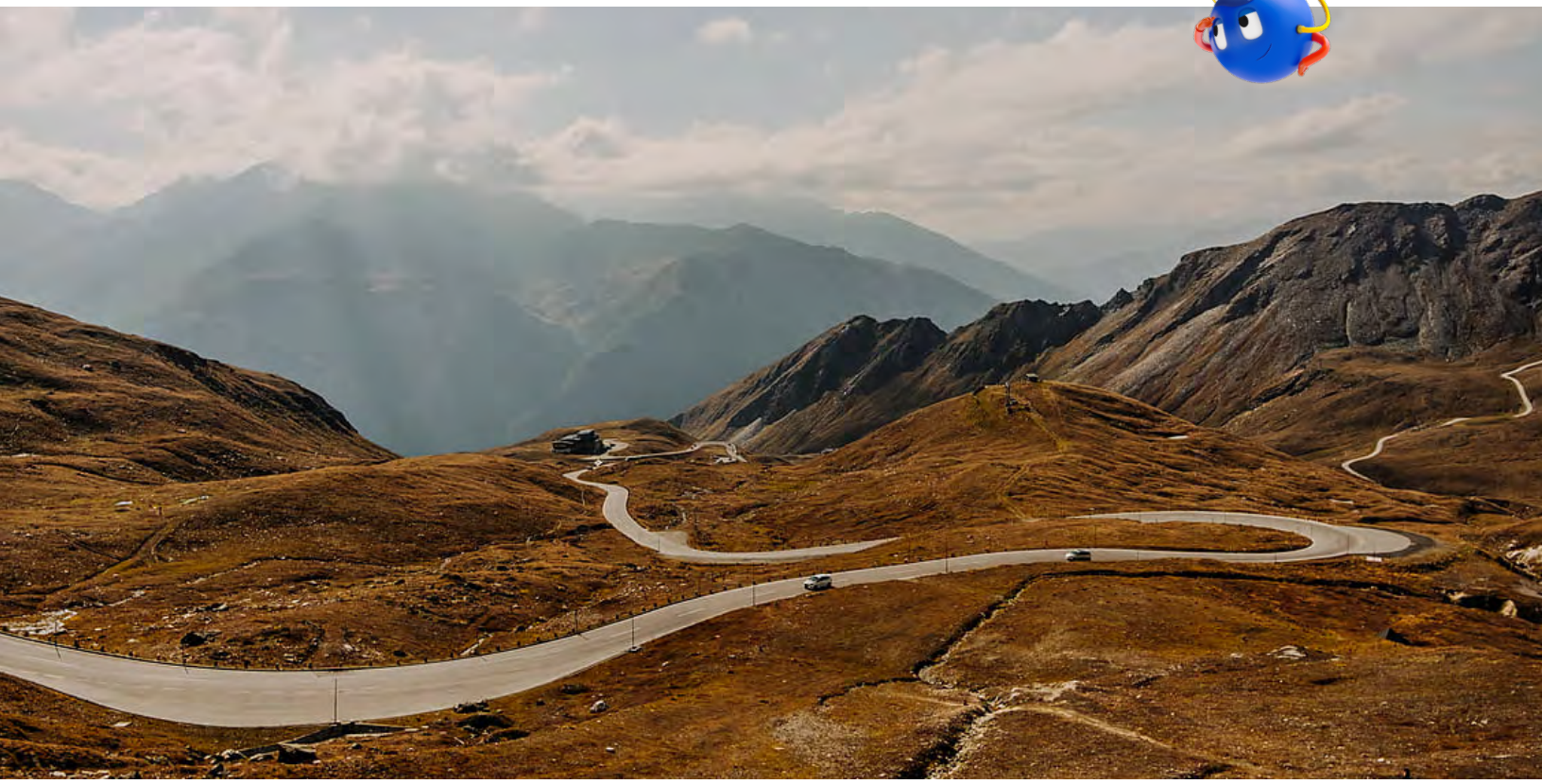

Charting the Automation Journey

A step-by-step guide to navigating a transformational automation program

Robotic Process Automation (RPA) has become one of the most important technologies for business transformation. Its potential to improve business agility, operational performance and customer experience is massive. This white paper uses best practice and real-world experience to provide a guide for initiating a new RPA program, as well as advice and recommendations when evolving existing RPA programs to capture their full transformative value.

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About this guide

This guide is designed to help organizations develop their own automation journey with RPA. It's based around a three-stage maturity model to move smoothly and transition between stages in your journey. While the model gives useful guidance on how a journey can progress and what you need to consider at each stage, the automation journey will, of course, be unique to the individual business goals and operating environments of each organization. The guide doesn't have all the answers for RPA implementation but provides direction, best practice and recommendations based on real world learning.

Simplicity is its strength: The secret of RPA

Throughout the history of business technology, the failure rate of large-scale IT change programs has been incredibly high. Some estimates put the figure at around 70%[1]. It's perhaps no coincidence that this is exactly the same level of failure that research suggests digital transformation programs are now experiencing[2]. Realizing the potential from digitally transforming your business is hampered by time, budget and resource hungry programs that often offer little hope of delivering the expected benefits.

According to Gartner[3], RPA is now seen as the second most important transformational technology by business leaders worldwide. Those surveyed were looking for 'improved business efficiencies' and 'increased profitability' from their adoption of transformational technologies.

What gave them cause for concern? Technical complexity[4].

The simplicity of RPA is its strength. RPA is a low to no-code technology that can be used to automate repetitive, rules-based tasks. It mimics human actions on how they work through a process such as inputting data and accessing different systems – down to the individual keystrokes. Its ease of use and capability to emulate the person means that process owners and business users, when trained, can quickly design, build, test and deploy automations that dramatically reduce the low value workload of an organization.

RPA automates tasks and processes rather than entire jobs so a significant part of its value lies in the ability to re-assign staff to higher value workloads. It's commonly used to automate tasks such as data entry, data reconciliation, spreadsheet manipulation, systems integration, triaging and managing emails, data reporting, analytics, as well customer outreach and communications.

RPA, however, is not just a low value workload reduction technology. It increases data and process quality, reduces or eliminates human error, increases governance and compliance, and can help quickly add new services to an organization's portfolio (see table below).

RPA is becoming a foundation for digital transformation because it quickly and cost-effectively achieves many of the business goals without large-scale change or widespread system and business disruption. In addition, it provides the platform to incorporate other transformation technologies – such as AI and machine learning – into your automations in a few manageable steps.

As more and more organizations experience the benefits of RPA, the challenge becomes how to establish an effective automation journey that allows them to scale automations successfully across the business to deliver real and lasting business transformation.

Common use cases for RPA automation

Customer experience	Internal operations	Technology enhancement	Data and analytics	Audit and control
Automated intelligent forms, contact center automation, applications and claims, license and permits, personalization and customization	Finance and accounting, human resources, IT operations and services, procurement and supply chain, business administration, customer service and support, field sales	System integration, legacy integration, enhanced system functionality, data verification and validation	Data mining, data cleansing, automated data reporting, performance monitoring	Operational compliance, regulatory compliance, data privacy and security, transaction review, automated controls, risk assessment and mitigation

The benefits of RPA

10x
Business growth
Increase through automation for technology company[5]

$1B
Operational savings
Medium term savings highlighted by global financial company[6]

200%
Customer acquisition
Growth without adding new resource for healthcare insurer[7]

15 to 1
Return on investment
ROI for a UK Government Department[8]

Defining the automation journey

RPA is still a relatively new technology area. Starting from simple screen scraping automation in the 1990s, it progressed through workflow automation to gain the recording and scripting capabilities that define RPA today. The technology is evolving fast with new automation capabilities appearing constantly. The next phase of RPA is already leveraging AI and machine learning capabilities to deliver intelligent automation.

This constant and rapid evolution offers increasing benefits as new features appear and new levels of automation are possible. However, this also means that implementing RPA technology within your organization has its own set of challenges.

UiPath has developed a three-stage automaton journey maturity model to help organizations successfully move from initial pilot to enterprise-wide deployment.

These stages are:

Getting started

This stage takes an organization from its initial RPA pilot project to rolling out its first productive automation across a specific business function or individual department. It establishes how to prepare for RPA automation, selecting the right RPA technology platform, how to implement the management structures and controls, and raise awareness throughout the organization.

Scaling across the enterprise

Once the RPA team has established the value of automation to the organization and demonstrated the benefits that can be achieved to all stakeholders, including senior management and employees, the organization moves on to the next stage. In this stage, you continue to automate the process in the initial function but look to scale these automations across the enterprise. You also begin to identify enterprise-wide processes that are prime for automation. While the main focus of this stage is driving enterprise-wide operational excellence, it also begins to introduce automations that bring business transformation in areas such as customer experience, service delivery and business agility.

Transforming the business

In the final stage, organizations concentrate on the transformative nature of RPA. This doesn't mean that operational excellence is abandoned, rather that transformation potential takes center stage. Central to this is the concept of a 'robot for every person' where every employee is empowered with their own individual digital assistant. More than this, citizen developers and business users are encouraged to develop and share automations that solve their daily business issues. This automation at every level of the business has the potential to completely transform how organizations operate and serve their customers as companies such as PwC[9] and Ericsson[10] are already demonstrating.

While the model is set out in a linear fashion, it's unlikely that automation will ever take place like this in practice. Every company will move at its own pace with some immediately delivering enterprise-wide automations and others concentrating on the one department or function. However, it's useful to view the model as developing layers of maturity where each stage is built upon and enhances the previous one.

UiPath three-stage automation journey:

- Getting started
- Scaling across the enterprise
- Transforming the business

The key components

Within each stage of the maturity model, there are several key components that are common to all stages. This guide will cover these components to show how they progress and evolve as an organization progresses between stages.

The components include:

- Process identification and prioritization
- Sponsorship and program management
- Key roles and responsibilities
- Technology selection and implementation
- RPA design, development and testing
- Operating models and management structures
- Metrics and reporting
- Awareness and communication
- Employee engagement
- Governance, risk and compliance
- Partner involvement

Any RPA program will have many moving parts that go beyond technology to encompass business strategy, organizational structure and culture. Most successful RPA implementations involve both a top down and a bottom up approach to process selection, automation and adoption. All elements of an organization need to actively engage to gain most value from RPA investments.

RPA automation journey maturity model

	STARTING	SCALING	TRANSFORMING THE BUSINESS
Owner	▪ RPA leader	▪ Business and IT leaders	▪ C-Level sponsors
Scope	▪ Business function/department	▪ Entire organization	▪ Entire workforce
Technology infrastructure	▪ RPA focused	▪ Intelligent Automation focused	▪ A robot for every person
Goals	▪ Prove value and benefit of RPA ▪ Operational excellence in department/function	▪ Operational excellence in enterprise ▪ Business transformation	▪ Business transformation ▪ Employee empowerment
Workforce model	▪ RPA lead ▪ RPA developers ▪ Business analysts	▪ RPA lead ▪ RPA developers ▪ Business analysts ▪ Business lead ▪ Citizen developers	▪ RPA lead ▪ RPA developers ▪ Business analysts ▪ Business lead ▪ Citizen developers ▪ Business users ▪ RPA champion
Center of Excellence maturity	▪ Technology focused	▪ Business focused	▪ Transformation focused
No. of robots	▪ 1-10	▪ 10-1000s	▪ 10-100,000s
Employee engagement	▪ Consultative ▪ Educational	▪ Consultative ▪ Educational ▪ Process identification ▪ Process improvement ▪ RPA development	▪ Consultative ▪ Educational ▪ Process identification ▪ Process improvement ▪ RPA development ▪ RPA validation and sharing

Dispelling RPA myths

Few technologies have created as much misunderstanding and confusion as RPA has. Let's take a look at some of the common myths.

RPA will take our jobs

No. RPA will take part of your jobs, and it's the part you don't like. It's those mind-numbing, repetitive tasks that eat into your day but deliver little. Automations don't remove jobs. They remove tasks from a process and, sometimes, the entire process. It can bring back 10%, 20%, 30% of your time for you to actually do what you're good at and adds value to the business.

RPA is solely intended to cut costs and eliminate workload

Yes, RPA is an effective tool for eliminating manual workloads and associated costs, but that's just a small part of what it does. It can also be used to improve transaction processing, decrease throughput time, increase accuracy, reduce errors, improve process auditability, increase productivity levels and enhance customer experience. In this way, RPA makes the organization as a whole better at what it does and allows it to begin digitally transforming its operations and services.

RPA is just a sticking plaster, we need a proper automation solution

For some reason, RPA is often viewed as outside the IT portfolio. IT departments sometimes consider traditional automation and testing approaches as superior. However, traditional automation projects can be lengthy, costly and involve changes to your underlying systems. For many processes, this is like using a hammer to crack a walnut. RPA allows effective automation to be built and deployed quickly without touching your current IT estate. RPA allowed new Covid-19 processes to be created from scratch in no more than days, which enabled capacity to meet rapidly increasing demand.

RPA will soon be out of date. Let's just wait for AI

RPA or AI is not a binary choice. Instead, RPA is an important stepping-stone to AI as it establishes the right technology structures, technology competencies and standardized business processes to adapt AI. It provides the scalable, high secure and high-performance platform that AI capabilities can be integrated into. Moving from manual, repetitive processes directly to machine learning or other advanced AI tools can be challenging.

The best way to achieve data interoperability is through APIs not RPA

Both RPA and Application Program Interface (API) provide a communications channel to move information between two or more systems. By interacting with applications like a human, RPA can open attachments, complete forms, capture and rekey data, update systems and create reports. RPA is especially good at handling interactions between legacy systems. Implementing integration is much faster and requires less coding skills with RPA than choosing to develop your own APIs or customize third party solutions. However, you can interact with APIs through your automations so RPA acts as a 'one stop shop' that connects both legacy systems and modern API-enabled systems.

The best RPA pilot candidates have the largest projected ROI

When introducing a new technology like RPA, ROI can be measured in several different ways including knowledge gained, infrastructure built, as well as capacity created. However, pilot processes usually represent the 'low hanging fruit' – those processes that are easy to automate but return the biggest benefits quickly. Perhaps, the biggest consideration when selecting a pilot process is that its outputs and benefits are demonstrable so that everyone becomes aware of the impact RPA can bring.

Building RPA automations is time-consuming and resource-intensive

The actual coding and testing of RPA automations should take no more than a few weeks. The time-consuming parts of automation can be taken up in gaining agreement from executive sponsors, process identification and selection, and meeting compliance and IT approvals and controls. Automation scheduling and roll out will often be determined by the governance policies and procedures you have in place.

Employees will fear RPA and not engage with the initiative

Because RPA automates the manual, repetitive tasks which often drive dissatisfaction in the workforce, the technology can actually be a spur for increased employee engagement. With the correct communications and education programs, employees quickly realize the benefits RPA can bring to their daily jobs. It's often the case that you can have too much engagement as employees want everything automated and they want it now!

Stage 1: Getting started

Building for the future

At the beginning of your automation journey, you want to prove that RPA will deliver real benefits to your organization. It's essential that you can demonstrate those benefits to management and staff to help secure buy-in, enthusiasm and funding for the program. Importantly, you need to put in place a foundation from the start that will let you grow and expand that application of RPA throughout the enterprise. In this stage, you'll move from the initial proof of concept to putting your first automations into production across a business function.

From proof of concept to pilot

Most organizations begin to investigate RPA to address recognized pain points within processes in a specific business function or department. The ease of design and development of automations make it relatively straightforward to quickly deliver low-cost proof of concepts. The proof of concept should show demonstrable benefits and the business impact of automation helping move on to the pilot stage.

There are key goals to be achieved at each stage:

Proof of Concept

- Demonstrate value of RPA to organization
- Create initial automation team
- Develop RPA implementation model for organization
- Develop automation framework including deployment and governance
- Select RPA technology platform
- Select automation partners

Pilot

- Identify key processes
- Implement process documentation
- Secure senior level sponsorship and funding
- Develop senior management and employee engagement and communication strategies
- Develop RPA automation team
- Develop effective testing regime
- Establish an RPA Center of Excellence
- Establish metrics to capture automation performance and benefits
- Deliver first fully automated process

Secure your sponsors early

While this is good for showing early benefits, if the proper preparation and planning doesn't accompany this activity, companies often struggle to move from pilot into the production phase. This begins with securing the sponsor that will help drive and sustain automation across the organization – including on-going funding. In addition, to line-of-business management within the business units and departments, it's essential to achieve the commitment of C-Level sponsors as early in the journey as possible. Some of the most successful organizations suggest establishing an executive RPA steering committee to facilitate the approval and adoption of automation as you progress through your journey.

Your automation team should include:

1. RPA lead
2. RPA developer
3. Business analyst
4. Automation partner

Roles and responsibilities

At the beginning of your journey, you need to assemble a small team to design and develop your initial automations.

These include:

RPA Lead / Implementation manager

The program manager leads the acquisition of RPA technology, identifies initial process requirements, coordinates automation development, testing, and deployment, and coordinates with the IT team.

RPA developer

RPA developers can be externally or internally sourced to design, develop, test and deploy automations. Many organizations reskill staff from the outset to achieve a strategy of self-sufficiency.

Business analyst / SME

The Subject Matter Expert (SME) brings their own knowledge of the process to help the RPA lead to identify automation requirements and help with deployment into the business function including user acceptance testing.

Automation partner

It's important that you establish how you will work with external partners early. It's likely that the partner will deliver process and development capabilities early in the journey and evolve to provide RPA operational and management support later in the program.

Awareness and engagement

Evidence suggests that employee resistance to RPA happens primarily where the RPA team has been poor in its communication to individual users, departments and senior management. This requires a two-pronged approach: a comprehensive communications strategy based around effective use cases, and a program for employee participation that will help drive process identification and automation acceptance as your program scales.

Awareness activities

- Use case development
- RPA automation videos
- Newsletters
- Information portal

Engagement activities

- Town hall and other online meetings
- Automation/Use case demonstrations
- Hackathons and other hands-on RPA events

Preparing to succeed

After a successful proof of concept, it's important that you establish your implementation and operating models. You need to know exactly how you'll roll-out an automation across a department and the enterprise. The implementation model will cover the RPA technology, IT infrastructure and systems, IT security, internal controls and governance and human resources required to operate and scale your RPA program. In addition, the way that you manage and execute your RPA program as it scales should be fixed early. Most organizations establish an RPA Center of Excellence (CoE) during the pilot stage that will handle the end-to-end lifecycle of automations, including operations, maintenance, change management and governance. The creation of an RPA steering committee will help develop the policies and procedures to move your RPA journey to the enterprise while reducing the potential barriers to rapid automation deployment.

From pilot to production

Even within a single business function, the step between pilot and production can be challenging. The pilot will have shown the value of RPA within a few select processes but it's essential that this can be replicated and scaled across multiple business processes within that function or department. A three-stage process can help manage the move from pilot to production.

Pilot phase

- Few processes automated
- Early benefits identified and achieved
- IT environment understood
- Small group of RPA developers and business analyst specialists trained
- Issues specific to the organization discovered
- Operating model/Center of Excellence implemented
- Technology platform selected and fully tested
- RPA and user testing processes agreed and implemented
- Agree on a delivery approach with business and IT

Roll-out preparation phase

- Defined scope of the RPA program
- Process pipeline created
- All processes fully documented
- High level automation roadmap developed
- Agreed delivery/implementation approach developed
- Operating model/Center of Excellence expanded
- Funding for the program secured

Production phase

- Implemented process automation roadmap
- Fully built RPA capabilities according to the chosen operating/CoE model
- Implemented benefit capture metrics and reporting
- Implemented business and technology metrics and reporting
- Developed RPA operations, management, maintenance and support skills

A three-stage process can help manage the move from pilot to production:

1. Pilot phase
2. Roll-out preparation phase
3. Production phase

Building a strategy around documentation and metrics

Capturing the benefits is one of the most vital aspects of any RPA program. You need to be able to demonstrate that automations are bringing the productivity, efficiency and ROI gains projected. This begins by fully documenting all processes before and after automation so you can show what improvements have been made and facilitate the process change to the automation over time. Secondly, you need to set out the key metrics that you'll measure – both business and technical – to showcase to all levels within the organization the effectiveness of your RPA program.

Key details include:

Process documentation

- Process details
- Process owner
- Process impact
- Process volume
- No. of people using process
- Time taken to execute process
- No of systems involved in process
- Stability of process
- Input and output destinations
- Run time and days
- Error and exception rates
- Details of changes/upgrade history

RPA metrics

- Hours returned to the business
- ROI
- Cost savings and cost avoidance
- New capabilities created
- Process velocity
- Process effectiveness
- Average cost per automation
- Average development time of automations
- Average automation utilization
- Automation execution success
- Automation error rates

Many companies find it best practice to develop a range of customized dashboards that allow metrics to be clearly displayed for key stakeholders.

The goal must be to establish a flourishing pipeline for potential automations working with senior management and employees.

Process identification and prioritization

Not all processes are suitable for RPA and, where they are, some are more suitable than others. A prime process for automation at the pilot stage will be:

- Highly manual and repetitive
- Mature and stable with low exception rates
- High volume, rules-based processes
- Minimal process routes
- Accessing few systems

However, as the program progresses, the type and sophistication of the process will expand. A strategic approach to automation from the outset will show how RPA is the trigger for the next productivity jump and process improvement across the enterprise. That jump can be characterized as the move from simply automating a process to a continuous process improvement as a foundation for business transformation.

The goal must be to establish a flourishing pipeline for potential automations working with senior management and employees. The candidate processes must be prioritized. This may not be the 'low hanging fruit' of the pilot stage but what will bring the largest and most sustained business impact.

Successful RPA programs tend to move from 'what can we automate' to 'what should we automate' quickly. While establishing a healthy pipeline can be relatively simple – employees will be keen to offload the tasks they don't like – you should move to place greater management controls about how candidates are assessed and prioritized as the program scales.

One of the key steps when moving from stage one to stage two of the RPA maturity model will be the introduction of a formal candidate intake and assessment processes, with inbuilt prioritization capabilities based around business impact, ease of development/deployment, cost and resource allocation as well as assigning accountability and metrics for that automation.

In Stage 1, you will:

- ✓ Create an automation strategy and roadmap
- ✓ Identify initial process for proof of concept/pilot programs
- ✓ Secure senior sponsorship for the RPA program
- ✓ Establish an RPA steering committee to drive strategy and governance
- ✓ Establish initial RPA team of RPA Lead, business analytics, developers and IT liaison
- ✓ Establish strategy for working with automation partners
- ✓ Identify, test and deploy RPA technology platform
- ✓ Establish RPA implementation model (with IT support)
- ✓ Establish RPA operating model/Center of Excellence
- ✓ Establish method for process identification, prioritization and documentation
- ✓ Establish business and technical metrics for automations
- ✓ Design, develop and deploy first automations across business unit or department

Three common mistakes to avoid

Selecting the wrong processes

Selecting the correct process for the proof of concept will determine whether the RPA program is green lighted. There are two common mistakes at this stage. The first is selecting a process that is easy to automate but delivers little or no real impact or benefit to the business. At the other end of the spectrum, some organizations try to automate a large and complex process end-to-end and fail. The process you choose should be designed to provide the maximum impact for the least amount of automation complexity. Very often, there are very simple processes or tasks that have a disproportionate effect on quality and business outcome. These are ideal candidates.

Not engaging with IT

RPA is often introduced to an organization at the business level. It's relatively easy for someone with little technical knowledge to begin automating processes. This can cause a disconnect and, worse, suspicion with the IT team. However, an RPA program is not so different from a traditional IT program and it'll rely on being able to seamlessly integrate with the existing IT infrastructure. Engaging from the very beginning with the IT team is the best way to have a strong and mutually beneficial relationship. IT will help prioritize processes as they know which systems are stable and which are about to be upgraded. As importantly, the IT team has all the deployment, security and governance experience of an enterprise technology roll-out to help you successfully scale the RPA program across the organization.

Communicating too early

It's extremely tempting to shout about a successful proof of concept or pilot automation. After all, you need to establish employee buy-in to build a strong process pipeline. However, communication takes careful planning. The pilot may have been successful, but does it offer benefit to those members of staff? It's often better to wait until you have compelling use cases that you know will capture the imagination of people within the organization. Subsequently, you must ensure that you don't frustrate or disappoint the initial enthusiasm you've built. If people start to suggest candidates but nothing happens, they will switch off from the program. Wait until you have a clear understanding of the processes you wish to automate and the resource available, to meet a rapidly expanding pipeline and secure long-term commitment from employees and management.

Stage 2: Scaling to the enterprise

Realizing the benefits of automation

Scaling to the enterprise represents a new set of opportunities and challenges for the organization. Stage 1 showed the benefits of automation and proved the RPA team's ability to move into full production for a series of automations within an individual business unit. The next level of automation maturity increases the number and complexity of processes as well as moving the focus from operational excellence to business transformation. It requires RPA capabilities beyond design and development to include the daily operation, management and support of automations that are now critical for business.

Focusing on continuous process improvement

At the beginning of your RPA journey, the processes selected are likely to be simple to automate but deliver significant impact and benefits. Building your initial pipeline may well be driven by the question: 'What can we automate?'. In Stage 2, the question becomes: 'What should we automate?'. This requires identifying tasks and processes that can bring change to how the organization operates and ensuring that they are as effective as possible. Invariably, upon automation, you'll discover very few of your processes are standardized, optimized, documented or implemented by staff as you had believed. RPA allows for the standardization and optimization of processes as automations are executed and operated.

In addition, the type of process that's being automated will evolve. More of the original business function's processes will be automated. The initial processes will be rolled out to other departments and functions that operate similar processes. More complex processes that go end-to-end across the entire enterprise become candidates. Finally, automation begins to move from driving operational excellence in back end functions such as invoice processing, HR, applications and claims, and compliance, to empower business users through desktop automations in areas such as customer service, sales and contact centers.

Building out your RPA capabilities

Stage 2 of the RPA maturity model signals the move from concentrating on development to operations. With the development and business analysis capabilities in place to manage a growing pipeline, you now need to create the capability to manage and maintain automations that are closely integrated with core systems and affect the daily work schedules of hundreds or thousands of employees. The operational and maintenance tasks are similar to those for any mission-critical IT implementation.

Development

In Stage 2, the development and business analysis functions are augmented by an RPA coordinator to ensure the timely identification, development and delivery of automations.

Testing

Automation, system and user acceptance testing become a foundational element of RPA at this stage. Deploying high quality, stable automations is key to continuing to deliver benefit to the business and users.

Management

As the volume and complexity of automation grows, effective management is required to ensure performance, availability and business continuity. Continually assessing and optimizing process performance is a major goal.

Support/Maintenance

A period of 2-3 weeks of hypercare should be applied to each new automation to ensure that any issues are quickly addressed and corrected. However, ongoing support and maintenance is essential as the RPA software is upgraded, new technologies are added or the underlying systems amended.

Roles and responsibilities

In addition to the RPA team already established in Stage 1, there are new roles required to meet the needs of organization-wide operations. These include:

Business analyst

The business analyst assesses and validates initial opportunities. This subject matter expert is responsible for establishing the value of the automations and ensuring they are optimally designed.

Project coordinator

The project coordinator oversees the automation from design to deployment. Their role is to navigate the process and ensure timely delivery of high-quality automations.

RPA operator

The RPA operator is responsible for the day-to-day operations of the portfolio of automations. It's their responsibility to ensure capacity, performance and security of automations.

RPA support

As your automation portfolio grows, the need for personnel dedicated to the support and maintenance of automations becomes more important. In addition to supporting daily operations, this person or team will be responsible for automation upgrades and patches.

Selecting your champions

A well-executed RPA program in Stage 1 will have engaged your employees and senior management leading to a healthy pipeline of candidate processes. However, the initial momentum must be maintained. Most RPA teams are compact, staffed with only the number of internal staff and partners needed to deliver against your RPA roadmap. Ensuring the employees remain engaged often falls, to some extent, to the RPA champion. These are evangelists throughout your organization that understand the benefits of RPA and want to promote automation within their work. Successful companies frequently establish a program to identify, develop and support these champions.

An effective program will enable the champion to generate interest within the organization, secure buy-in from their friends and colleagues and help the program proceed and be accepted within their area.

Key tools to create and maintain an RPA advocate program:

- Workshop/seminars
- Hands-on RPA sessions
- Newsletters and information bulletins
- Information portals
- Dedicated social media channel
- Rewards and incentives

The power of reuse

There's often a great deal of commonality between the tasks and processes within an organization. For example, completing an application in one department will only vary from another's application in terms of a few fields and they may access the same systems. This gives the opportunity to scale operations more quickly by creating automations - or parts of an automation – that can be reused across the enterprise. As development begins to scale, and delivery becomes an increasingly important factor, the use of automation reuse techniques between developers can accelerate delivery time while increasing the quality of the delivered automations.

Many organizations establish a central repository of code snippets and automation functions within their Center of Excellence. While Stage 2 is where code reuse becomes particularly beneficial, it's best practice to build the concept of reuse into your RPA strategy from the outset and identify the parts of any automation that can be reused in other areas.

Towards intelligent automation

Once you have applied RPA to improve your existing processes, the combination of automation and artificial intelligence (AI) can begin to deliver not only a new level of optimization but also the ability to begin to transform processes and work practices. In the first instance, AI and machine learning enables your automation to handle unstructured data such as email content, expanding the type of process that can be automated. Intelligent automation systems sense and synthesize vast amounts of information and can automate entire processes or workflows, learning and adapting as they go. In Stage 2, most organizations begin to build their capacity in intelligent automation, bringing new AI skills and technologies into their Center of Excellence.

From operational excellence to business transformation

Entering Stage 2, the focus of most RPA programs is achieving operational excellence across their key business processes. This is an essential and enduring part of every RPA journey. However, operational excellence is only the start. High performance, scalable automations are becoming a fundamental platform for delivering digital transformation across the enterprise.

When brought together organizations can achieve the following benefits in Stage 2:

Operational excellence

- Lower operating costs
- Higher workforce productivity
- Higher employee engagement and satisfaction
- Increased data integration and quality
- Improved legacy integration
- Minimized operational and compliance risk

When brought together organizations can achieve the benefits:

- Operational excellence
- Business transformation

Business transformation

- Higher customer engagement and experience
- Increased revenue generation and profitability
- New product design and development
- Supply chain visibility and optimization
- Increased business agility and flexibility

The evolution of the Center of Excellence

Core to most RPA operating models is the Center of Excellence (CoE). It provides a central hub for all RPA activities and should include four separate aspects:

Business

- Knowledge management
- Standardization of policies and procedures
- Vendor/Partner relationship management and support
- Governance and control

Functional

- Specific RPA application and functional knowledge
- Automation process expertise
- Coordination of RPA related metrics and scorecards

Technical

- Connectivity and infrastructure
- Automation configuration
- Automation maintenance and support
- Database maintenance and support
- Help desk support
- RPA technical support

People

- Training and development
- Communication
- Change management

Creating a Center of Excellence is an important step to ensuring you're leveraging RPA potential strategically. There are three types of CoEs that you can choose depending on your own organizational structure and business requirements.

Centralized

A single Center of Excellence that handles all RPA development, management and governance activities for all the business units within the organization.

Federated

A series of small Centers of Excellence that sit within the separate business units and are responsible for all RPA activities within that unit.

Centers of Excellence within separate business units focus on:

- Technology
- Business
- Transformation

Hub and spoke

A series of small Centers of Excellence that sit within the separate business units and are responsible for the development and deployment of automations within those units. These are connected to a central 'hub' that's responsible for strategy, governance and control of automations at an enterprise level.

As RPA within an organization matures, the capabilities of the Center of Excellence evolve. The emphasis moves from identifying, developing and deploying automations to the smooth and secure operations of the automation portfolio. The center moves from a technical focus to business orientation and finally into full transformational operations.

Technology focus

- Assess and prioritize few processes to be automated
- Develop RPA and put into production automated processes
- Train and expand developer, business analyst and SME resources
- Set-up working model with IT organization
- Interact with RPA vendors/partners

Business focus

- Ensure smooth functioning of existing automations
- Continue to automate new processes
- Manage changes (process change, application change, decommission etc.)
- Expand RPA roles and responsibilities, including business user and citizen developer enablement
- Expand technology support to include AI and machine learning/intelligent OCR/BPM systems, etc.
- Perform operational management and process optimization
- Perform support and maintenance functions
- Perform security/control/compliance functions
- Interact with the IT organization

Transformation focus

- Manage a robot for every person
- Provide governance and control for citizen developers and business users
- Provide training and support for citizen developers and business users
- Provide central repository for automations
- Deliver easy to use, self-service automation capabilities across the organization

In Stage 2, you will:

- ✓ Accelerate the RPA program across the enterprise
- ✓ Increase the breadth and depth of processes automated
- ✓ Implement a strategy of continuous process improvement
- ✓ Build RPA operation, management and support capabilities
- ✓ Evolve your Center of Excellence into a Robotic Operations Center
- ✓ Begin to empower business users with desktop automations
- ✓ Establish and develop an advocate program
- ✓ Begin to expand your automation program to include emerging digital technologies such as AI and machine learning
- ✓ Start to create automation designed for business transformation as well as operational excellence

Three common mistakes to avoid

Underestimating the power of champions

Regardless of the stage of maturity you're currently at, a healthy pipeline of automations is essential. For users there needs to be a sense of forward momentum. They may not get all the automations that they requested but they must be able to understand the benefits and see that progress is being made. Overlooking the role of champions within business units can be a huge mistake. Not only will they energize those around them to engage with the program, they can buy you time when their colleagues' requests are lower down your priority list.

Spending too long in testing

Although RPA programs are similar to traditional IT programs, they're not the same. Automations can be designed, developed and deployed in a fraction of the time. This ability to rapidly create an automation solution to a business challenge is the key benefit of RPA. However, excessive testing can slow the deployment of automation and undermine its value. Thorough testing is, of course, essential but you should ensure that all testing is proportionate to the operational importance and risk attached to that RPA robot. In addition, automating your workflow testing involves some up-front investment, but once built, RPA tests can be executed any time a change is made to that robot.

Not empowering the business user

In Stage 2, many organizations continue to focus on automating more and more processes. The goal is operational excellence through removing as much manual input from end-to-end processes as possible. While this will achieve benefit for the organization, it can leave a great deal of RPA's potential unrealized. There are many smaller tasks where it's difficult for the Center of Excellence to build a business case for automation. At this level of maturity, you should begin to identify where automations can help individual workers, and the skills and training they need to fully benefit from the use of virtual assistants. By deploying citizen developers that create their own automations, smaller automations become cost effective. Achieving a degree of business user enablement will facilitate the step into Stage 3.

Stage 3: Transforming the business

A robot for every person

The concept of a robot for every person is to arm every employee with their own virtual assistant that can take care of many of their mundane and repetitive tasks. This allows the employee to refocus to higher value activities that will positively impact the business. It'll also usher in a huge cultural change in the way that many organizations operate.

Small automations, big impact

Providing an automation on every desktop can help employees quickly accomplish a wide range of low value tasks that consume time and impact their efficiency.

How a robot for every person helps employees with tasks

- Schedule meetings and confirm appointments
- Create PowerPoint decks for sales proposals
- Create a CRM case and input client info in real time
- Book holiday, sick leaves, etc.
- Download invoices, POs or other documents
- Access and extract data from multiple systems
- Set up systems and credentials for new hires
- Automatically create forms and capture inputs
- Automatically create reports and summaries

Empowering people with digital assistants to take care of tasks and processes that range from simple to complex allows them to do more than simply become more productive. It enables them to design better ways for them to work. In addition, it encourages the development of citizen developers that can create their own automations to deal with issues that they or their colleagues are experiencing.

Achieving real transformation

Stage 3 in the maturity model represents a breakthrough for automation in the enterprise. Evidence suggests that a focus on process automation only addresses up to 7% of tasks while employee empowerment enables the automation of another 40% or more[11].

Today, PwC is rolling out a robot for every person across its workforce of close to 300,000 staff. The result has been to introduce entirely new ways to digitally engage with customers and involve staff in redesigning services and how they're delivered[12].

Two tracks, one platform

In Stage 3, there are two overlapping tracks to the RPA program. First, there's the robot for every person. Automations are designed and delivered either by the Center of Excellence or the citizen developers. These automations are tested, validated and approved by the CoE prior to being made available to other business users, usually through an online portal.

Secondly, the organization will continue to automate processes – especially involving back-end processing and core systems - with the goal of achieving little or no human input whatsoever.

At Stage 3, there is one more important role that you should add to the RPA team, an RPA champion.

In both cases, a single technology platform should be implemented. The same RPA technology can be applied to deliver both flexible digital assistants and end-to-end fully automated processes. The platform allows for the centralized control, management and governance of all automation types through the Center of Excellence. This facet of the RPA program takes on vastly increased significance when thousands of citizen developers spread throughout the organization are building unique applications without scrutiny or direction. Governance and risk, in this instance, must be instituted within a central and accountable body.

Skills and education

To be successful at this stage of maturity means providing all employees with the training and tools they need to make the most of employee-based automations. Not all business users will want to develop their own automations, but they must be comfortable with the automations available, how to access them and how to deploy them. In addition, citizen developers will require in-depth reskilling to introduce a level of capability that means they're able to identify where automation is the correct approach, produce high quality and stable automations, and make them available to others. This will require:

Business user

- Automation training
- Training on accessing and installing automations
- Ongoing communication
- Training on security and compliance implications of automations
- Information portal
- Incentives and benefits

Citizen developer

- Automation training
- Automation development training
- Process identification, prioritization and improvement training
- Automation portal training
- Enrolment in champion program
- Incentives and benefits

Roles and responsibilities

At Stage 3, there is one more important role that you should add to the RPA team.

RPA champion

As RPA is increasingly focused on employee empowerment, the RPA champion is responsible for the launch and management of these automations. They cover user adoption, education and governance. The champion is responsible for ensuring that RPA adoption is achieved with as many employees as possible.

A robot for every person: new levels of control and governance

Basic RPA and the increasing adoption of intelligent automation has given rise to new risk and governance challenges as enterprise adoption intensifies. Even within organizations that aren't part of heavily regulated industries, there are departments and business units subject to higher compliance and operational scrutiny.

A robot for every person adds another level to these compliance and governance challenges. With more and more citizen developers creating their own automations - that may well include elements such as personal data – there are several enterprise risk considerations that must be addressed:

Establishing acceptable risk

You will need to decide your appetite for risk, and measure and communicate compliance requirements against the automations being created.

Identity management and security

All automations require secure authentication and authorization of the people creating and using them. Traceability, accountability and segregation of duties must be fixed at the outset.

Integrated controls and auditability

Lack of controls around your automation program can prevent you from meeting security, privacy and compliance requirements. Being able to demonstrate and audit what automations have done has to be part of your management and operations capabilities.

Business continuity

Inconsistent citizen developer skills and training, as well as lack of change management processes and other controls, can easily create an unstable automation environment. Availability and resilience must be built into testing, approval and deployment.

Enterprise risk considerations that must be addressed:

- Establishing acceptable risk
- Identity management and security
- Integrated controls and auditability
- Business continuity

In Stage 3, you will:

- ✓ Empower every employee with their own digital assistant
- ✓ Use employee empowerment to redefine how your business operates
- ✓ Use employee empowerment to redefine the products and services you offer customers
- ✓ Continue to automate as many processes end-to-end as possible
- ✓ Institute an 'automation first strategy' that builds automation into all new processes by default
- ✓ Use employee empowerment to redefine your customer and stakeholder experience
- ✓ Create a two track RPA program covering process automation and employee empowerment on a single RPA platform

Three common mistakes to avoid

Not properly preparing your workforce

A robot for every person, as it suggests, is as much a cultural change as it's a technical one. Reskilling and re-education become fundamental to success. This has two elements. Users must be trained in how to use automation and develop their own if they wish to. In addition, business users must understand how this will change how they and the organization operates. They must accept and embrace this new style of digitally augmented work.

Not making it easy to share automations

Once trained, citizen developers have proven to be very enthusiastic about the potential of RPA. Experience has shown these developers will work late and weekends to create automations to solve their business issues. The value to the organization is in making these automations securely and compliantly available to everyone who needs them. In many cases, the Center of Excellence establishes a central repository where citizen developers can upload their automations and have them validated and approved. Other business users can then access the repository to download any automation they think will improve their ability to do their job.

Not planning and delivering enterprise roll-out effectively

Stage 3 represents a whole new scale for automations with potentially hundreds of thousands across a global organization. This puts new pressures on the roll-out and adoption of this style of automation. Whereas previously, the Center of Excellence could simply deploy the application and users would then automatically benefit from its use, now adoption is voluntary for business users and citizen developers. Users must be educated and encouraged to adopt automations at their own pace. This takes careful planning as well as a more comprehensive communications and engagement strategy.

Building an RPA platform for every stage in the automation lifecycle

When you begin on your RPA journey, it's important to select an RPA toolkit that will allow you to progress seamlessly through the stages of maturity. This doesn't only comprise the RPA features and functionality within the solutions but also their ability to integrate with other digital technologies including AI and machine learning. The RPA solution provider must also be able to provide consultancy, support, training and knowledge transfer to scale your capabilities as your automations begin to scale.

A single, unified RPA platform

UiPath is the only automation provider to offer a comprehensive range of RPA solutions across the entire automation lifecycle, delivered as a single, unified platform.

Stage of RPA lifecycle	Discover	Build	Manage	Run	Engage	Measure
What's covered?	Discover automation opportunities powered by AI and your people	Build automations quickly, from the simple to the advanced	Manage, deploy, and optimize automation at enterprise scale	Run automations through robots that work with your applications and data	Engage people and robots as one team for seamless process collaboration	Measure operations and performance to align with business outcomes
UiPath solution	▪ Automation Hub ▪ Process Mining ▪ Task Mining ▪ Task Capture	▪ Studio ▪ StudioX ▪ Studio Pro ▪ Document Understanding	▪ Orchestrator ▪ Automation Cloud ▪ AI Fabric ▪ Test Manager	▪ Attended Robots ▪ Unattended Robots ▪ Test Robots ▪ API Integrations	▪ Action Center ▪ Assistant ▪ Chatbots	▪ Insights

The UiPath Community

In addition to the comprehensive RPA solution portfolio that addresses the entire automation lifecycle, the UiPath Community gives you access to more tools, skills, best practice and learning. UiPath Marketplace includes over 1,000 complementary technology add-ons and solutions to meet every automation need. In addition, the UiPath Academy delivers flexible online and offline courses covering every aspect of RPA and automaton. The Academy is a key part of the reskilling strategy for one large consultancy rolling out a robot for every person worldwide[13].

To find out more about the RPA solutions and services from UiPath that can help you get the most from your RPA investments, wherever you are on your automation journey, visit uipath.com

About UiPath

UiPath has a vision to deliver A Robot for Every Person, one where companies enable every employee to use, create, and benefit from the transformative power of automation to liberate the boundless potential of people. Only UiPath offers an end-to-end platform for hyperautomation, combining the leading Robotic Process Automation (RPA) solution with a full suite of capabilities that enable every organization to scale digital business operations at unprecedented speed. The company has already automated millions of repetitive tasks for over 65% of the Fortune 500 and 8 of the Fortune 10.

Named a 2020 CNBC Disruptor 50 company, UiPath was recognized as the fastest growing technology company in the Americas according to FT Americas' Fastest Growing Companies 2020 and named the top company on Deloitte's 2019 Technology Fast 500, a ranking of the fastest growing public and private technology companies in North America.

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