

# Understanding Robotic Process Automation: Developing Business Cases and Getting Started

by The Hackett Group

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Canon Business Process Services is pleased to provide you with important research on developing the business case for RPA (robotic process automation) in your organization and getting started. Your business case should cover value drivers as well as implementation criteria spanning workflows, information management, technology and service delivery. The report includes a special focus on best practices for developing roadmaps and launching RPA technology.

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# Understanding Robotic Process Automation: Developing Business Cases and Getting Started

By Erik Dorr, Martijn Geerling and Jim O'Connor

## Executive Summary

A structured approach is required for developing RPA business cases. These should cover a broad range of criteria, including value drivers, process, data, technology and service delivery model. Although RPA technology is new and there is limited real-world experience with full-lifecycle, large-scale deployments, a number of best practices for developing roadmaps and launching implementations are emerging. Specifically:

- Designate an RPA champion.
- Align RPA initiative with continuous improvement programs:
- Plan based on conservative, risk-adjusted assumptions.
- Create a structured, process-led approach to evaluate and prioritize initiatives.
- Establish governance and business-IT collaboration early in the project.
- Manage change formally.
- Align the project with the strategy and operating principles of the business.
- Lead the effort from within the Global Business Services organization.
- Establish an RPA Center of Excellence once the project is up and running.

## RPA Business Case Evaluation Criteria

Findings from The Hackett Group's analysis of RPA (explored in the first two parts of this series) imply a number of critical success factors for RPA deployments. These are based on evaluation criteria for potential uses of RPA (**Fig. 1**). Business support functions (e.g., finance, HR, IT, procurement) and Global Business Services organizations must develop a structured evaluation model for RPA business cases using these criteria. Below and in the following pages, we look at each criterion separately.

### **Business value drivers**

The business value drivers for RPA include both the benefits and the cost side of the value equation. Benefits revolve primarily around the cost-savings potential of RPA deployments. These are dependent on the volume of work, the amount and cost of labor involved in manual execution of the work, the percentage of "cases" that can be fully automated (i.e., that will not be handled as exceptions), and the projected life span of the deployment. Other value drivers in the business case are current error rates and cycle times, as well as RPA's potential to improve these performance metrics. The value

**FIG. 1 RPA use-case evaluation criteria**

		Metric/ Scale	Normalized score	Weight	Weighted score
<b>BUSINESS VALUE DRIVERS</b>					
	Volume				
	Volume variance/peaks loads				
	Cost (total/labor component)				
	Variance/exceptions				
	Auditability value				
	Analytical capability value				
	Error rates				
	Cycle time				
	Labor cost drivers (training requirement, turnover)				
	RPA projected life-cycle				
<b>SCORE</b>					
<b>PROCESS ATTRIBUTES</b>					
	Stability				
	Process variance				
	Digitization				
	Standardization				
	Process model complexity				
<b>SCORE</b>					
<b>DATA ATTRIBUTES</b>					
	Stability				
	Variance				
	Digitization				
	Standardization				
	Quality				
	Data model complexity				
<b>SCORE</b>					
<b>TECHNOLOGY</b>					
	Application landscape complexity (number of systems, number of instances)				
	Platform stability (maintenance, release upgrades, etc.)				
	Integration cost/complexity				
	Application modernization roadmap				
	Systems' scalability/transaction volume				
<b>SCORE</b>					
<b>SERVICE DELIVERY MODEL</b>					
	Centralization, organizational location (GBS)				
	Sourcing model (internal, outsourced)				
	Process ownership model				
<b>SCORE</b>					
<b>TOTAL SCORE</b>					

Source: The Hackett Group

## **Alternative integration and automation approaches**

RPA is one of a number of different approaches to application integration and task automation. An alternative route is traditional, IT-led application integration. This approach does not integrate applications at the user interface layer, but may use application program interfaces (APIs), database access, application integration tools, middleware, workflow or business process management software.

Another approach is consolidation and/or modernization of the application landscape.

from increased auditability of the work itself must be assessed, plus the benefit of improvements to analytical capabilities. The processes that are best suited to RPA are high-volume, low-complexity and stable.

Total cost of ownership<sup>1</sup> is a function of process complexity, the stability of processes and systems, and the cost of the RPA technology and solution development.

### **Process attributes**

Our roundtable participants emphasized the importance of evaluating process complexity, stability, standardization and variance as factors determining the suitability of RPA to automate activities or tasks. Robots are defined to work within fixed parameters. Depending on the nature of the automated activities, a percentage of tasks will fall outside these parameters, requiring exception management. The lower the process variance, the more suitable the activity or task is for RPA.

Process digitization is another important attribute. RPA activities must be part of a sequence of digitized activities, integrated with other digitized upstream and downstream activities in the process flow.

### **Data attributes**

The need for stability, standardization and quality applies to data as well as processes. Out-of-tolerance data, or data that fails validation steps due to errors, results in exceptions. How valuable RPA will be depends on how many exceptions must be handed off to human operators. Moreover, RPA input data must be manually entered into a computer system by a human operator, or be structured and fully digitized. For example, in a purchase-to-pay process, invoice data must be captured via OCR from a paper invoice to feed a series of tasks automated through RPA.

### **Technology attributes**

RPA automates the execution of tasks implemented in multiple siloed systems. Modifications to any of these underlying systems will result in the need for maintenance of the robot. As a result, application environments subject to frequent modification and upgrades are less suitable for RPA-based integration. Hence, application landscape stability is an important technology-related evaluation criterion.

This dependency underscores the importance of rigid governance and coordination of modifications to any system integrated through RPA. While the business may develop a first release of an RPA deployment with limited IT involvement, maintenance of the robot throughout its lifecycle requires mature version control and configuration management practices.

Because application consolidation or modernization can achieve many of the same integration and automation objectives (*see sidebar at left*), RPA business cases hinge on technology strategy, and specifically business application roadmaps. Companies running siloed, legacy back-office systems that are slated for replacement with integrated business application suites should be very cautious about investing in RPA for the short term.

### **Service delivery model attributes**

Centralized processes located in a GBS center are more suitable for RPA than decentralized processes. Most RPA initiatives are driven from within a GBS organization, so candidate processes tend to be those executed in the GBS. Other SDM-related considerations are sourcing model and process ownership model.

<sup>1</sup> Comprises all components of cost (labor, technology and all other) throughout the full lifecycle of an asset, including development, implementation and maintenance.

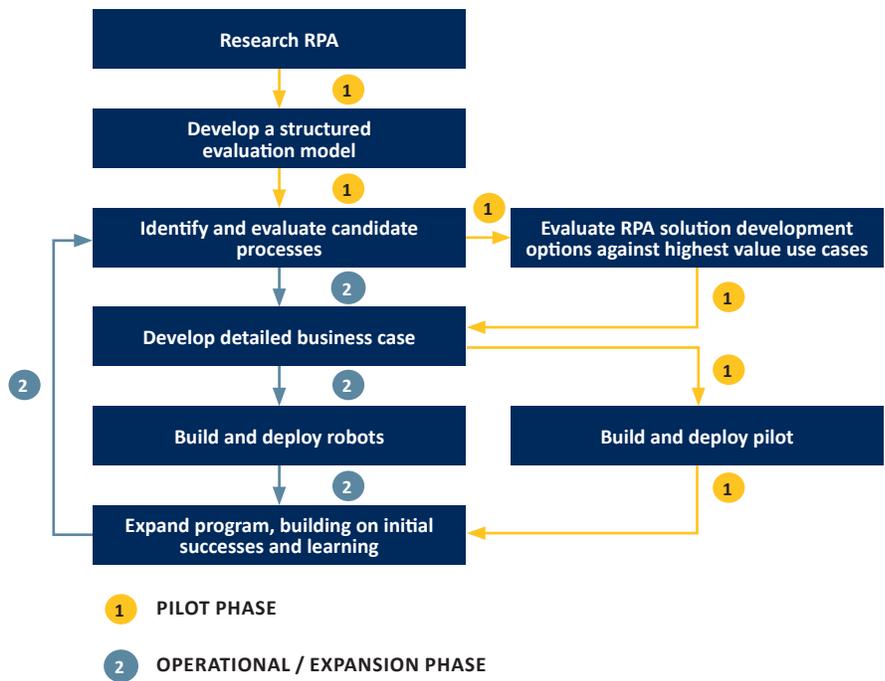
## Next Steps: Developing an RPA Adoption Roadmap

RPA analysis in this research series up to this point may leave business leaders feeling conflicted about what to do next. While compelling business cases may exist, pursuit of these opportunities must be balanced with risks and the company's mid- and long-term technology roadmap. Governance and definition of roles and responsibilities of the business and IT are other important considerations. Embarking on an RPA journey without effective governance virtually guarantees inefficiencies and maintenance issues down the road.

Furthermore, RPA raises important questions about BPO relationships and the sourcing model. Should RPA expertise be built in-house and work insourced? Should companies put pressure on incumbent BPOs to go down the RPA path, or look for other BPO service providers with strong RPA capabilities? These uncertainties notwithstanding, The Hackett Group advises business services organizations to develop an RPA adoption strategy and roadmap based on the following recommendations:

- **Designate an RPA champion.** Getting an RPA initiative off the ground requires the designation of resources with a strong process improvement mindset and skillset. These individuals often may be found in continuous improvement organizations or program management offices. Depending on the size of the organization and scope of the initiative, the RPA champion may be a single individual pulling in resources on an ad-hoc basis or a leader managing an RPA team. The ability to identify process performance improvement opportunities and develop RPA-based solutions requires the process analysis, performance measurement and solution design skills commonly found in continuous improvement organizations, such as Six Sigma, Lean and Lean-Sigma.
- **Align RPA initiatives with continuous improvement programs.** It is necessary to identify process performance improvement opportunities and develop RPA-based solutions using the process analysis, performance measurement and solution-design skills commonly found in continuous improvement programs. Companies embarking on RPA projects should align them with existing expertise, resources and programs in this area. For example, the RPA champion referred to in the previous bullet may be recruited from the CI team and RPA initiatives may be administered and managed using the existing program infrastructure. Once the RPA program has matured and (possibly) a Center of Excellence has been established, the RPA COE and CI programs should develop a close collaborative relationship, sharing resources on projects.
- **Base plans on conservative, risk-adjusted assumptions.** Organizations have gone through numerous cycles of inflated expectations about technologies and other approaches to improve performance (BPR, ERP, BPO, offshoring, etc.). While these eventually delivered value, initial and unrealistically high expectations inevitably had to be recalibrated. RPA will be no different. So while ROIs calculated in multiples of 100% and assumptions of 80%-90% reductions in headcount may be achieved in very specific business cases, this will not be the norm. Business cases must be developed based on risk-adjusted and moderated planning assumptions. Further, reliable reference data on value and cost drivers is lacking because deployments are relatively new and insight into full lifecycle cost and benefits is not yet available.
- **Establish a structured, process-led approach to evaluate and prioritize initiatives.** When a promising new technology comes along, there is often a tendency to manage it as a "solution in search of a problem." This is counterproductive. RPA evaluation should be business process-led, not technology-driven. A structured approach is required both in the pilot phase and the operational and expansion phase, including the steps described below and illustrated in Fig. 2:

**FIG. 2 A structured RPA evaluation process**



Source: The Hackett Group

1. **Research RPA.** Invite technology vendors and service providers for briefings. Talk to peer organizations and advisory firms, but be sure to filter information that might be commercially biased.
2. **Develop a structured evaluation model.** Assessing the suitability of processes for RPA should be based on a formal methodology, using evaluation criteria and weightings. The RPA value drivers discussed in the first section of this report can be used as the basis for constructing such a model.
3. **Identify and evaluate candidate processes.** Identify high-volume, labor-intensive, repetitive and stable processes that are promising candidates for RPA application. Weigh these against the criteria defined in the evaluation model. Select one to three different processes for prototyping an RPA solution. For each candidate process, collect current-state cost and performance data. Develop high-level business cases based on rough estimates of current and future-state process cost.
4. **Evaluate RPA solution development options against the highest-value business cases.** At present, only a few technology options are available for solution development. Evaluate two or three RPA solution development options against the processes identified in the previous step. Solution development may be done by internal resources working directly with the RPA technology provider or with an implementation partner of the RPA technology. Establish an understanding of the development, implementation and maintenance cost parameters for each solution development option. Also, model the future-state process operating parameters.
5. **Develop a business case.** Based on all information collected, prototypes with their associated future-state operating models, and RPA lifecycle cost estimates, create a detailed business case. Select a technology vendor and solution development approach for each process being considered.
6. **Build and deploy a pilot project.** A complete solution should be built and deployed as a pilot project. The results should be evaluated against projections. Lessons learned should be factored into the planning of future projects.

7. **Expand the program, building on initial successes and lessons learned.**  
Develop additional business cases based on earlier process analysis that has been refined with lessons learned from pilot projects. Prioritize funds and execute additional projects based on business cases.
8. **Establish governance and business-IT collaboration early in the lifecycle.** RPA tends to be marketed directly to the business, and most early initiatives are entirely business-led. In some instances, IT may even resist the projects out of concern for compliance with technology architecture standards. Depending on the quality of the business-IT relationship, the business may still want to push ahead, minimizing IT's involvement. However, this is counterproductive. At some stage, IT needs to get involved in provision of infrastructure and system maintenance. Deferring upfront IT involvement will only lead to inefficiencies later on in the project lifecycle. Any technology dependencies and issues are best addressed in an early stage. Therefore, effective collaboration and RPA governance must be in place early in the project.
9. **Manage change.** RPA projects involve organizational change, which may be dramatic. Therefore, as with other transformation projects, change must be carefully managed and include communication and training. Most organizations already have change management methodologies and toolkits which are also applicable to RPA initiatives. Change management is especially important in RPA due of the anxiety it sows among workers about potential alterations to current roles or even the elimination of jobs.
10. **Adhere to strategy and operating principles.** Even if RPA offers compelling performance improvement opportunities, the service delivery organization should not be distracted from its strategy and operating principles. RPA can improve the efficiency and quality of services, but by its very nature, its impact is limited to low-value-added work. If such work has already been outsourced to permit greater focus on high-value activities, the outsourced model should continue, with the outsourcer being pressed to implement RPA and pass on or at least share the resulting savings.
11. **Lead the effort from within the GBS.** Since the processes that are best suited for RPA are most efficiently run by the GBS organization, in the majority of cases the GBS should lead the RPA charge.
12. **Establish an RPA Center of Excellence.** Once critical mass has been reached, establish an RPA COE. This is a natural evolution of the more limited taskforce established in the early stages of RPA adoption. The COE should incorporate both business and technical roles. Its staff ordinarily would reside within the GBS and report to GBS leadership. The COE may be aligned with continuous improvement programs also residing inside the GBS.

## About the Advisors

### Erik Dorr

*Vice President, Strategic Research, and Lead Author*



Mr. Dorr has over 20 years of experience in consulting, research and advisory roles in information technology strategy, enterprise application suites and business process reengineering. Before being named to his current position, he was Senior Enterprise Research Director. Prior to joining The Hackett Group, he held a number of senior management positions, including Vice President of IT at a global manufacturing company, where he was also a member of the executive leadership team.

### Martijn Geerling

*Practice Leader, Global Business Services Advisory Program*



Mr. Geerling has over 15 years of consulting experience in strategy development, business process redesign and implementing sourcing strategy, both shared services and outsourcing. During this time he has worked with business services organizations of leading global companies across various industries. Prior to joining The Hackett Group, he worked at KPMG Consulting assisting clients in Europe and Asia with finance-function transformation, business process redesign, and risk and compliance management.

### Jim O'Connor

*Global Practice Leader, Global Business Services and Finance Advisory Programs*



Mr. O'Connor has over 20 years of both industry and consulting experience focusing on finance transformation. He has particular expertise in strategy and organization design, business process design, strategic cost reduction, reporting, planning and performance management, BI and financial systems, shared services and outsourcing. In these roles, he has advised client executives in a wide range of industries including consumer products, financial services, higher education, manufacturing, retail, and utilities. Previously, he led the CFO Services practice at North Highland, a global consulting firm, and before that, focused on finance transformation and strategy at Archstone Consulting, now a part of The Hackett Group.

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