



WHITEPAPER

From robotic process automation to intelligent automation

Six best practices to delivering value
throughout the automation journey



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PREFACE

Six best practices to delivering value throughout the automation journey

The opportunity to apply robotic automation to business processes has captured the attention of many organizations as they compete in a digital-first world that requires seamless operations, and greater value from resources.

By adopting robotic process automation (RPA), organizations are automating rule-based processes with software programs that do not require human interaction, and are applying them to systems, such as ERPs, workflow, and databases. The next stage in the automation journey beyond RPA is Intelligent Automation (IA), which includes technologies such as machine learning and dynamic workflow. Intelligent Automation delivers exponential value by learning and adapting as it automates.

While interest in RPA continues to soar, clarity on what this technology is, how it can be adopted successfully, and where it is going has not kept pace. To clear the ambiguity around RPA and its future, Genpact partnered with Zinnov, a research firm, to produce this practical paper.

Encompassing the insights from over 25 interviews with RPA practitioners and subject matter experts, plus Genpact's lessons from deploying more than 1100 Bots, this guide offers best practices to organizations at all levels of maturity. Looking beyond the immediate productivity benefits, we also explore how firms are impacting top-line growth as the evolution into intelligent automation includes more advanced artificial intelligence (AI), and transforms the workplace and the workforce to enhance human potential.



INTRODUCTION

Robotic process automation has evolved significantly over recent years. When applied with systematic planning, RPA substantially improves performance and reduces the cost of operations.

Most enterprise processes are manual, deterministic, and repetitive, and more than 70% can be automated using software robots. Processes that have greater complexity and require human judgment can also be automated by 15-20% through strong collaboration between software robots and human workers. Figure 1 shows process complexity and automation opportunities in financial services as an example.

Standardized processes

Payment processing	Tax calculation & filing	Reconciliations	Invoice processing
Trade processing and settlements	Corporate reporting	Funds transfer and review	Account closure
Loan account and credit line setup	Customer account opening	Data migration	Interest payments
Setting credit limits	Periodic accounting books closure	Loan disbursements	KYC/AML process
Loan applications processing	Updating accounts details	Regulatory reporting	Card account interchange and settlement
Fund accounting	Trade confirmations and settlements	Transactions authorization	Tax claims management
Document processing	Overdraft/advances provision management	Contract compliance	Credit underwriting

Foreclosure audit review and resolution	Collateral review	Personalized offers and promotions	Risk exposure monitoring
Internal communication monitoring	Fraudulent transaction detection	Customer queries	Personalized financial advice

Complex processes



Figure 1: Automation in banking and financial services processes

As automation technology evolves at an accelerated pace, enterprises are becoming more aware of the need to align their technology investments to customers' needs and business outcomes. For these organizations, value is captured by cutting across some of the most complex processes and using intelligent automation technologies that truly mimic human action. In this setting, process automation requires cognitive abilities, such as natural

language processing, speech recognition, computer vision technology, and machine learning, to comprehend the vast amount of structured and unstructured data, learn on the go, and intelligently automate processes.

As the early majority - the first sizable part of a population to embrace innovative technology - adopts the technology and explores new use cases, the convergence of RPA and

digital is moving the goal from simply adopting robotic automation for productivity gains to achieving intelligent automation for faster, more insightful decision making.

Organizations that combine RPA with additional digital technologies, such as dynamic workflow, machine learning, and/or natural language processing (NLP), are realizing greater value by achieving intelligent automation. A commercial financial services firm, for example, has

applied these technologies to its underwriting process for loans. NLP reads an applicant’s financial statements and any information in the public domain. Dynamic workflow ensures the lender reviews the analysis with scoring models for decision-making, while robotics creates a customer profile sheet. Faster decision-making is a productivity benefit, but the bigger value lies in making more accurate customer and pricing decisions.

LAY OF THE LAND

Lets begin our automation journey by looking at RPA. Gartner predicts that “by 2020, end-user spending on robotic process automation software will reach \$1 billion, growing at a compound annual growth rate (CAGR) of 41% from 2015 through 2020.” The forecast says that “by 2020, RPA tools will have evolved to include more types of functionality, such as AI software, but will experience strong downward pricing pressure.” In addition, “by

2020, 40% of very large global organizations will have adopted an RPA software tool, up from an estimated less than 10% today.”¹

Some industries, like financial services and retail, have taken the lead with RPA, while manufacturing and healthcare firms have recently increased traction. Over 50% of Genpact’s large enterprise clients have either invested in or are actively considering investing in RPA.

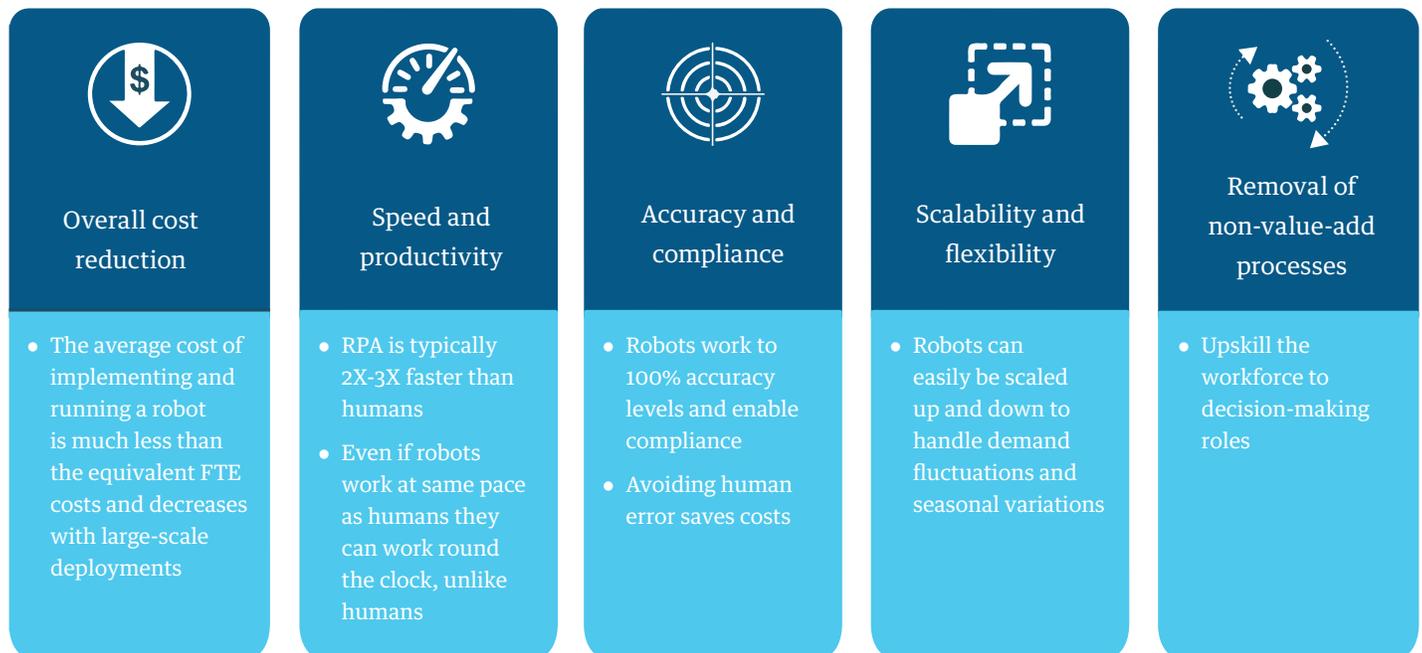


Figure 2: Benefits of RPA adoption for enterprises

¹ Gartner, “Forecast Snapshot: Robotic Process Automation, Worldwide, 2016,” Tornbohm, Cathy, 30 December 2016

There are a variety of benefits that are driving enterprises towards RPA (see figure 2). Most significant are the potential cost savings: up to 55% for deterministic, rule-based processes. Speed of execution, accuracy, and compliance are other key RPA benefits for organizations, in particular for financial services firms. Retail companies looking for capacity on-demand realize that onboarding human resources for a short period of time requires

considerable effort and senior leadership bandwidth; for that reason they are gravitating towards using RPA instead. Companies can also free-up human resources from low-value, repetitive work, and redirect them to higher value work that requires judgment to improve employee morale and satisfaction, which in turn further improves productivity per person.

SIX RPA BEST PRACTICES TO ADOPT

RPA offers tremendous opportunities, but enterprises need a carefully crafted strategy and execution approach to harness them. A combination of deep process expertise,

technology prowess, and domain knowledge is also vital. An RPA deployment should build on six established best practices (see figure 3).

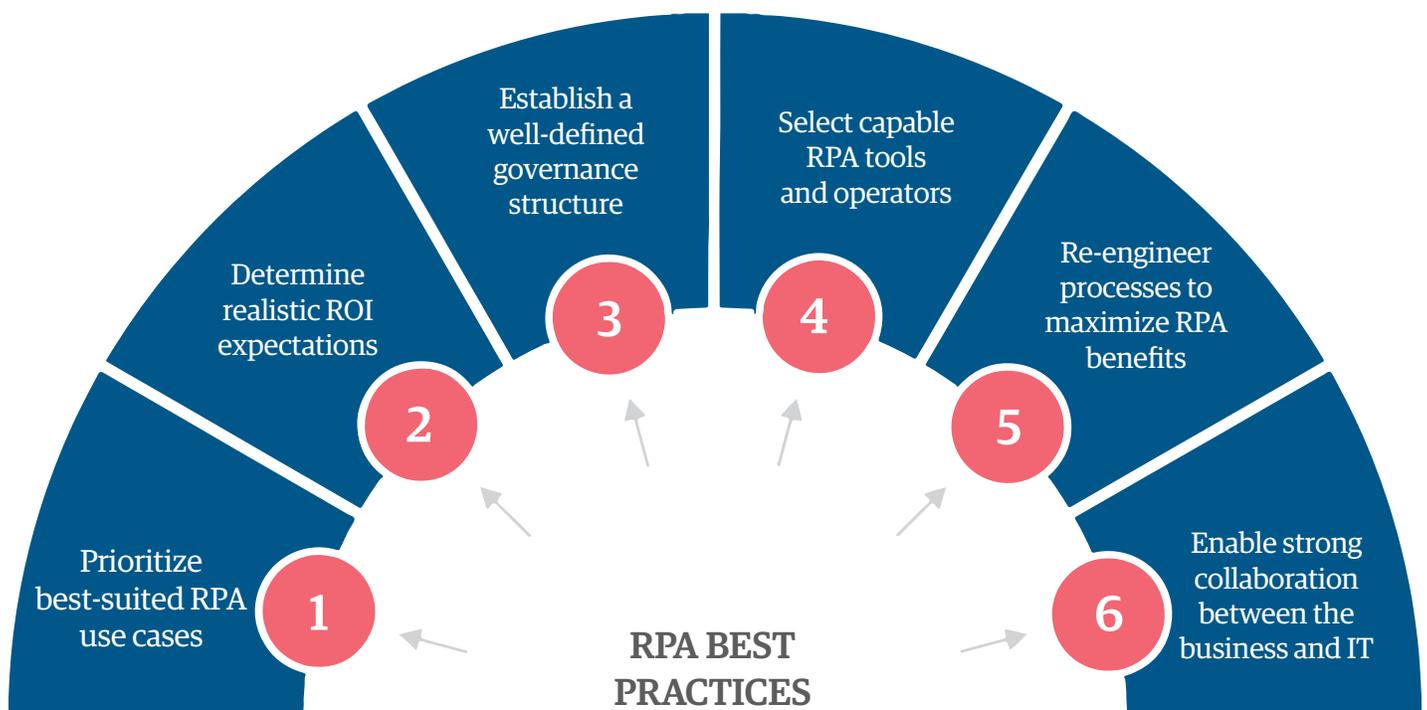


Figure 3: Six RPA best practices

1 Prioritize the best-suited RPA use cases

Identify the most appropriate processes for RPA by looking for deterministic and rules-based parts of a process (see

figures 4 and 5). This will help quantify the value it can drive, and enable automation initiatives to deliver the expected results. The best approach is to start small, achieve quick wins, and build internal stakeholder confidence. As enterprises gain more experience, it becomes easier to scale RPA initiatives to address complex processes.

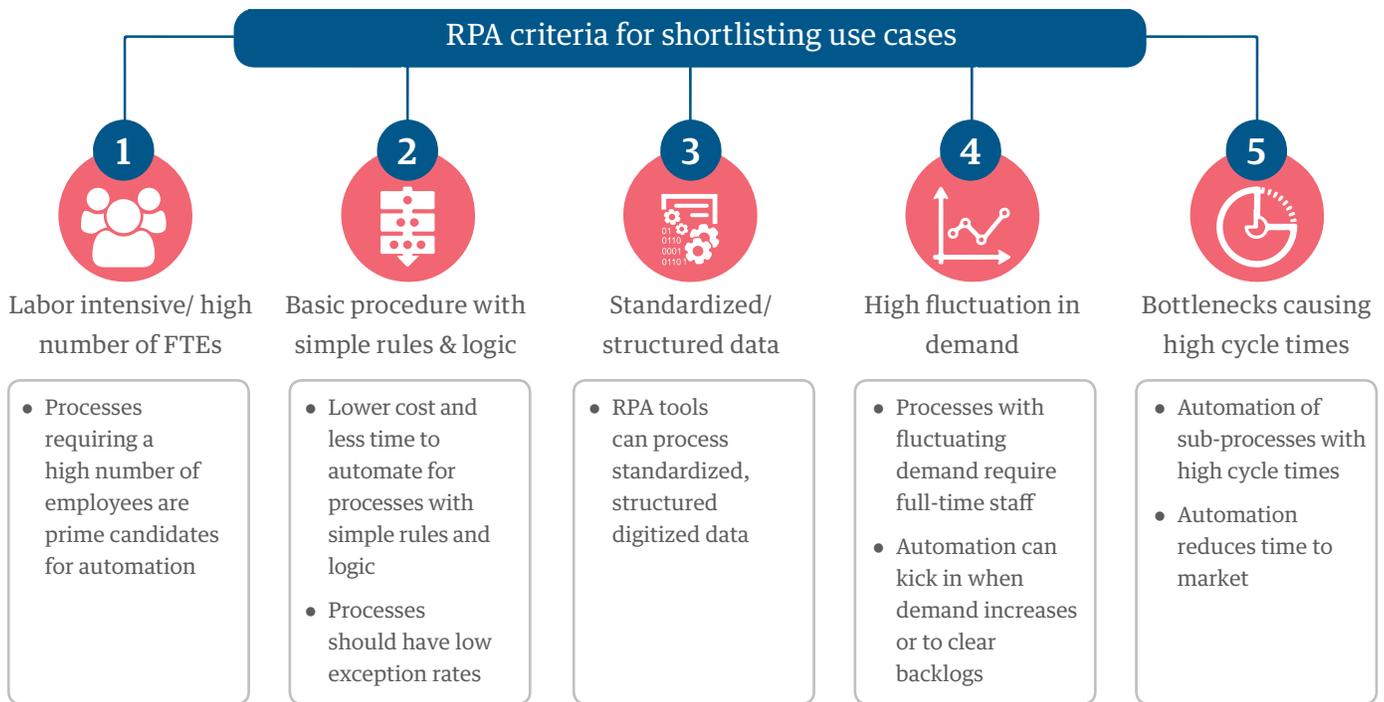


Figure 4: Criteria for prioritizing the best-suited RPA use cases

There are three process types that are excellent candidates for RPA implementation:

- Data-entry procedures in workflow processes: such as entering data from claims documents into a claims management system and invoice-processing functions
- Data extraction from standard databases: for example, extracting customer information to file tax claims and data migration activities from one system to another
- Routine processes: such as processing insurance claims and banking transactions

"We are looking at very transactional, rules-based processes, lower in the value chain. We will move to processes higher in the value chain as we achieve success."

*VP - Finance Transformation
(Leading European Reinsurance Provider)*

2 Determine realistic ROI expectations

The time taken to achieve ROI is one of the biggest challenges in RPA adoption. Enterprise processes continue to increase in complexity with greater seasonality, regulatory requirements, geographic variations, or numbers of exceptions, which result in longer development times and more user-acceptance testing. The time to reach break-even could range from six months for standard processes to up to two years for complex ones. The cost savings also range between 10-50% depending on the complexity (see figure 5).

Enterprises should look at robot utilization in a critical way and use RPA platforms that allow robots to shift between

processes during lean periods. Businesses managing large virtual workforces can consider creating centralized control to manage bots, monitor performance, and track benefits.

"In our experience, for best results, the process to be automated needs to be standardized along with clear demarcation of rule based vs. non-rule based parts."

*General Manager
(Large Global Container Shipping Company)*

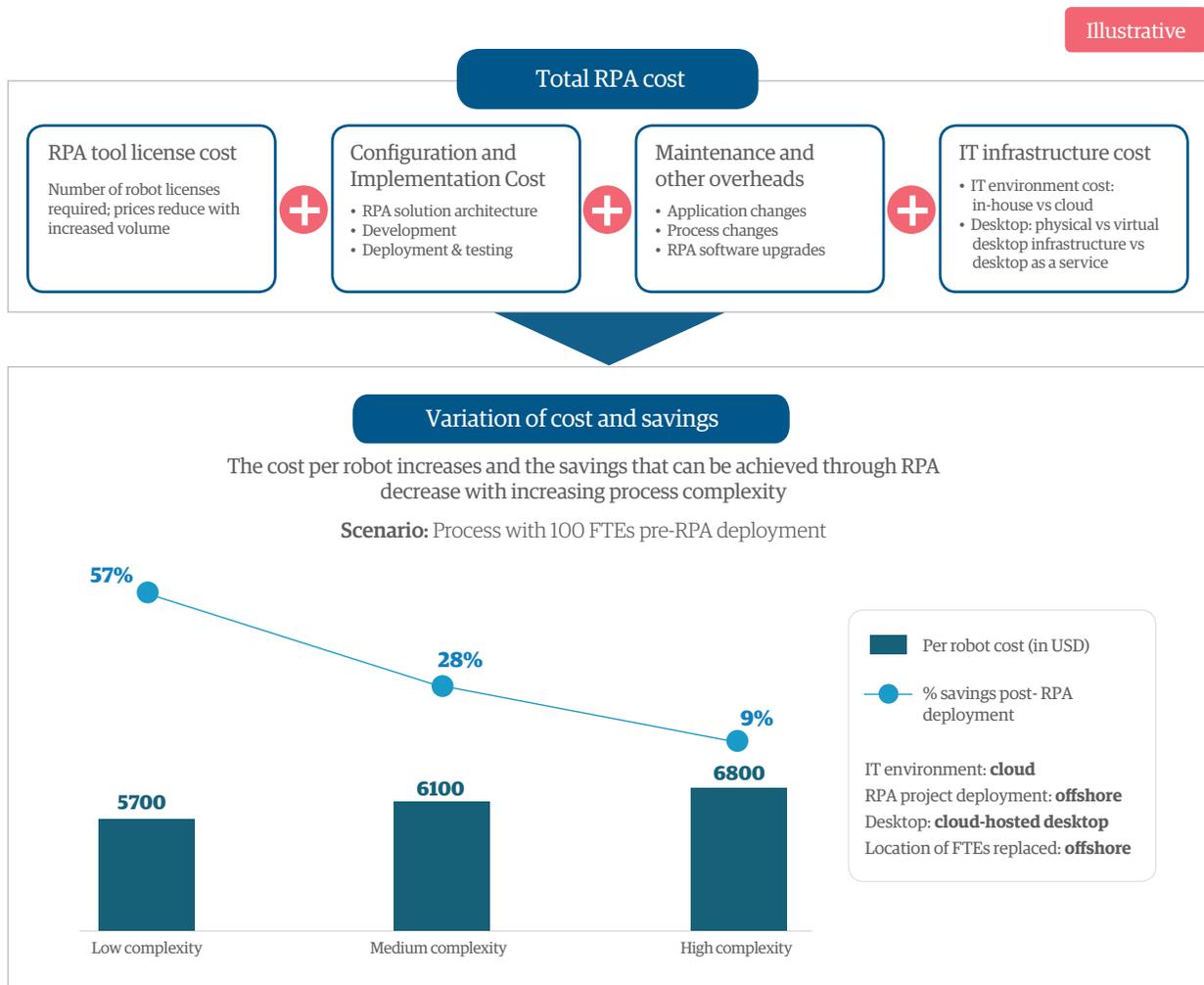


Figure 5: RPA ROI considerations

3 Establish a well-defined governance structure

A governance structure that defines roles and responsibilities for automation activities will help deliver successful RPA initiatives (see figure 6). Key elements include:

- Guidelines and templates for assessing, designing, developing, and deploying robots, and enabling collaboration between business units
- Frameworks for internal change management
- The ability to track performance and productivity metrics to assess impact and highlight areas for improvement

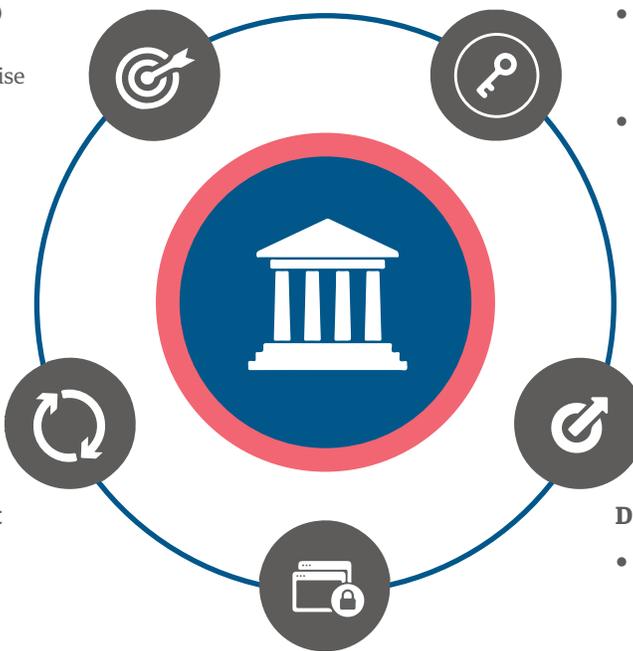
A guide to governance

RPA vision/ roadmap

- Create a Center of Excellence (COE) early in the journey to accelerate adoption of RPA across the enterprise
- Set deadlines for achieving intelligent automation to leverage the full value of automation

Enterprise change management

- Communicate the benefits: RPA helps to eliminate repetitive, non-value-adding tasks so employees can make a greater impact in their roles
- Involve HR to support employee upskilling, which increases employees morale, further improving productivity. Organizations should prepare employees to work alongside software robots.



Ownership

- Involve legal, risk, IT, and other teams that are involved in the processes due to be automated
- Include process-specific Subject Matter Experts (SMEs) for insight on the process nuances

Deployment framework

- Calibrate production and development environments to ensure smooth RPA deployment
- Ensure IT is aware of RPA-enabled processes, and that it communicates any code changes to the RPA/operations team before they go into production

Operational risk/ data security

- Create a cross-functional team to clear temporary backlogs in case of bot failure
- Maintain people in critical processes for error-free delivery

Figure 6: A guide to governance

4 Select capable RPA tools and operators

Leading RPA platforms are equipped to handle the most common automation scenarios. Organizations should evaluate tools with pre-built automation libraries that have re-usable components to connect to back-end systems, data-extraction capabilities, and cost and licensing options. As companies mature to automate processes with unstructured data and require cognitive abilities, they integrate RPA with wider technology solutions to achieve greater benefits.

It is also important to work with service providers that can offer end-to-end process support. Such providers can help your organization create an internal center of excellence that can support critical business functions or processes to improve your results.

5 Re-engineer processes to maximize RPA benefits

RPA practitioners recommend re-engineering business processes so that they produce the fewest exceptions. Inefficient processes that have critical interdependencies on other processes and applications, along with those that are prone to a high degree of exceptions, do not generate the desired RPA outcomes. By reengineering appropriate processes, you can increasingly include RPA as part of broader process and digital transformation initiatives.

6 Enable strong collaboration between the business and IT

A significant number of RPA failures are attributed to the lack of collaboration between business and IT functions. Business leaders often fail to include IT in RPA planning discussions as they assume that RPA systems don't require extensive IT support.

On the other hand, in the case of IT-intensive projects, IT leaders often undermine the value of a business function's view point and do not take process nuances into consideration. RPA enablement should be a combined effort between the business and IT with an operating model that defines the roles and responsibilities of each player. While the function needs to own the operational requirements, process design initiatives, and performance monitoring, aspects such as reliability, risk management, technological compatibility, identity and access control, and compliance are for the IT organization to deliver.

Enterprises considering introducing RPA to their organizations should evaluate these six practices to prioritize the processes that can best be performed by software robots, stay invested for the long term, create an effective governance plan, and lead their organization to intelligent automation.

"Optimization of processes through techniques such as Lean and Six Sigma can also go hand in hand with automation through RPA, as the ultimate aim for the company is to gain maximum efficiency."

Director-Operations Enablement (Global Information Services Provider)

THE FUTURE BEYOND RPA

As the benefits of RPA adoption continue to grow, greater numbers of organizations are beginning their own deployments. However, as RPA is still subject to much speculation, businesses need a well-designed strategy to pivot from boardroom conversations to actual success. Directed systematically, RPA adoption is paving the way to achieving the cost and operational efficiencies desired by most organizations.

The future of RPA and intelligent automation will be shaped by the following key forces:

Process-centricity as priority

A process-centric view is essential as multiple digital technologies start appearing in (and confusing) organizations. This will become even more important as RPA is deployed as part of broader business process management and digital transformation initiatives, and success is measured top-down. For RPA to mature into intelligent automation, it is important for organizations to re-imagine processes using design-thinking principles to create winning customer experiences, and end-to-end solutions, while managing compliance and governance.

Integration of RPA and emerging technologies

The combination of RPA and advanced technologies is transforming deterministic and rule-based RPA into truly intelligent automation. Enterprises are expecting to gain greater value from IA with its promise to process vast amounts of data, learn on the go, and automate complex business workflows. Intelligent automation will evolve to leverage artificial intelligence over time, achieving the next era in automation, with more significant benefits.

A global financial services firm, for instance, uses artificial intelligence to deliver personalized advice to its high-net-worth clients. The solution scans through relevant data sets and crawls various publicly available information sources and unstructured data to build a profile of the individual. It identifies behavioral patterns using an AI engine to show potential matches

with different types of wealth management products. The relevant recommendations are shown on the client's mobile phone, tablet, and other devices.

RPA, enterprise software and APIs

Over time, RPA capabilities are likely to become more closely integrated in other enterprise software products. Industry acquisitions in the RPA space are set to continue, while broader enterprise software companies will integrate RPA into their offerings and build a software library of intelligent automation use cases to enhance the customer experience. APIs will play a big role in enabling the exchange of information across technologies. This tighter integration of these technologies will lead to less custom development work, and even higher levels of productivity.

It's fair to say that the path to successful RPA adoption can be challenging given the multitude of decisions and choices that enterprises need to make along the way. These range from where to apply and prioritize RPA with well-defined outcomes, to how to adopt RPA: the tools, partners and governance. And while enterprises grapple with these choices, rapidly evolving, interconnected technologies are pushing the boundaries of what is possible even further.

The benefits, however, make RPA a key opportunity for enterprises to invest in today. The reality is that RPA should be addressed as part of a bigger digital transformation initiative. CEOs and leadership teams must build an integrated automation vision, commit to its success, and develop measurable goals across the organization. Corporate leadership teams need to amend their roadmaps based on pilot projects and continuously refine their automation vision with clear rewards for executives and employees to make RPA a priority now.

Service providers that bring in the unique combination of deep domain knowledge, technology prowess, process handling (including exceptions), and adherence to SLAs are indispensable for achieving ROI at scale. A service provider's ability to leverage design thinking to reimagine processes is also a critical factor in guiding enterprises through this maze. Successful RPA deployment will

depend on the provider's automation experience, prowess in high-velocity engineering, Lean implementations to enable continuous iterations and improvements, and expertise and capabilities to carry organizations beyond RPA to IA.

RPA is coming of age and becoming a mainstream investment focus across industries. As such, organizations are bringing robotics and advanced digital technologies together, balancing human and robot workforces, and automating intelligently. Pulling all of this together through intelligent automation requires strategic planning, and the ability to break boundaries, convince stakeholders, and occasionally fail. These temporary failures lead to greater learning for an enterprise's overall digital transformation journey.

In today's hyper-competitive world, the only choice enterprises do not have is to not make a move at all.

Genpact: RPA and intelligent automation

Genpact has led the deployment of robotic process automation in over 750 sub-processes for more than 140 client functions – including finance and accounting, supply chain management, insurance underwriting, and healthcare

policy administration. We have developed unrivaled experience and skills in bringing intelligent automation to organizations worldwide, leveraging the power of Genpact Cora, our AI-based platform for digital transformation.

Based on our Lean DigitalSM approach, which combines design-thinking practices, process and domain knowledge, and digital technologies and analytics, we deliver transformational impact and expected business outcomes. Our capabilities include digital consulting, mature RPA assessment methodologies, end-to-end governance, agile development, deployment accelerators, and tools such as an intelligent automation index, which helps prioritize and validate business cases to cut through the many decisions to deploy RPA and IA successfully.

We have automated more than \$100 million transactions and generated \$325 million in annual savings for clients with an average 40-50% productivity gain. In addition, our intelligent automation initiatives have improved customer experiences, resulting in higher revenues, greater competitiveness, and increased market share.

In recognition of our credentials, analyst firm HFS Research positioned Genpact in the Winner's Circle of its 2016 Blueprint Report on Intelligent Automation, which highlights our holistic approach to intelligent automation.

About Genpact

Genpact (NYSE: G) is a global professional services firm that makes business transformation real. We drive digital-led innovation and digitally-enabled intelligent operations for our clients, guided by our experience running thousands of processes for hundreds of Global Fortune 500 companies. We think with design, dream in digital, and solve problems with data and analytics. We obsess over operations and focus on the details - all 78,000+ of us. From New York to New Delhi and more than 20 countries in between, Genpact has the end-to-end expertise to connect every dot, reimagine every process, and reinvent companies' ways of working. We know that rethinking each step from start to finish will create better business outcomes. Whatever it is, we'll be there with you - putting data and digital to work to create bold, lasting results - because transformation happens here, at Genpact.com.

For additional information contact, technology@genpact.com and visit www.genpact.com/rpa2018

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