



**Seizing the Robotic Process
Automation (RPA)
Market Opportunity**

September 2015

Foreword

Today enterprises are challenged by tectonic shifts in nearly every aspect of their businesses – economic, technology, demographic, and consumer preferences to name a few. To help them meet these challenges, organizations are adopting technology and automation solutions to enable best-in-class Business Process Management (BPM) outcomes. One technology gaining rapid favour is Robotic Process Automation (RPA) – essentially defined as automation that can handle rules-based and repetitive tasks without human intervention, or unassisted automation.

Although the current BPM spend impacted by RPA is low, it grew at over 100 per cent CAGR over the last two years and is expected ultimately to impact 30-40 per cent of total BPM spend. There is good reason for this robust adoption – RPA has a lot to offer: cost reduction of 35-65 per cent for onshore process operations and 10-30 per cent in offshore delivery; improved service delivery in the form of process quality, speed, governance, security, and continuity; an investment recovery period as short as 6-9 months; and, a generally non-invasive, easy-to-manage nature.

Of course, RPA is not without its challenges. Unclear or misplaced expectations, resistance from internal IT organization, and inability to create a true Total Cost of Ownership (TCO) model are some of the key challenges in RPA adoption today. Finally, thinking of RPA as a stand-alone panacea rather than an important technology lever among several others also limit unlocking strategic value.

RPA has many wide-ranging implications for the BPM industry. Notwithstanding short-term pain of transition, if leveraged strategically, it can have a positive impact on BPM service provider revenue and operating margins in the medium-to-long term. Of course, this would significantly increase share of automation / technology-based revenues in BPM. The talent pyramid and mix in the BPM industry will likely change and so are the commercial constructs.

This report “Seizing the Robotic Process Automation (RPA) Market Opportunity” examines the state of the RPA market today and its potential in the coming years. It offers a series of case studies across horizontal and vertical business processes and highlights lessons learned from early RPA adopters. This report also explores the “coopetition strategy” adopted by BPM service providers, RPA technology vendors, and specialist technology integrators and the various options it results in for a BPM buyer. Finally, it takes a look at the future implications of RPA on the BPM industry

We trust you will find the report useful and welcome your feedback and comments. We encourage you to reach out to our members to understand more on these case studies.

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Acknowledgements

A blue-toned illustration at the top of the page shows a worker in a hard hat and safety vest standing next to a control panel. To the right, there are two robotic arms mounted on a base, and further right, a conveyor belt system with various components.

The report **“Seizing the Robotic Process Automation (RPA) Market Opportunity”** is a joint effort by NASSCOM and Everest Group. Everest Group conducted an extensive two-month study that involved detailed primary and secondary research examining the state of the RPA market today and its potential in the coming years for the BPM industry. This study also leverages a previous year of analysis and research on automation conducted by Everest Group.

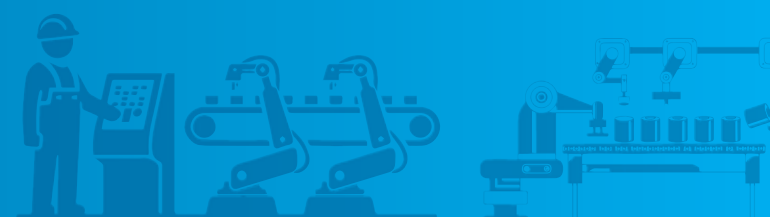
We would like to thank various stakeholders for their valuable contributions, without whose participation this report would not have been possible.

We would like to thank the member firms of NASSCOM – whose detailed inputs on numerous industry trends and case examples have added great value to the report.

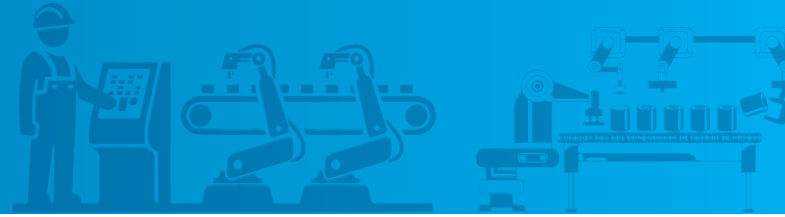
Special thanks to the Everest Group team comprising of Sarah Burnett, Anupam Jain, Rajesh Ranjan, Nitesh Sinha, and Bhawesh Tiwari who have put forth significant effort to complete this report.

Finally, we would be remiss if we did not recognize the NASSCOM research team for its effort and valuable contribution towards this report.

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Executive summary

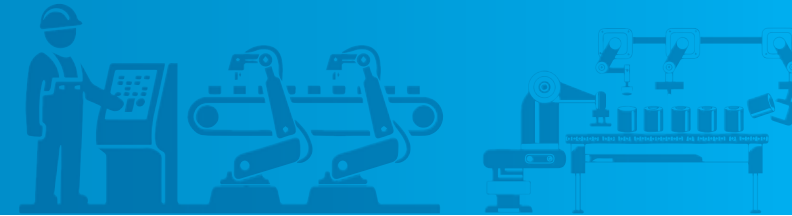


- In the shifting world order, technology and automation is fast emerging as one of key levers to create best-in-class Business Process Management (BPM) outcomes
- Robotic Process Automation (RPA) is an unassisted automation approach that offers high value creation opportunity (significant cost savings, better service delivery & manageability, and quicker time-to-value) at relatively lower risk (non-invasive and easier remediation)
- Consequently, RPA adoption in BPM is growing at a CAGR of over 100% and is likely to impact 30-40% BPM spend in the long run
- Regulated industries with high-volume, transactional business processes offer the most potential for RPA. Existing BPM buyers lead RPA adoption
- Unclear expectations, resistance from internal IT organization, and inability to create a true Total Cost of Ownership (TCO) model are some of the key challenges in RPA adoption today
- There is a competition strategy at play within the RPA supplier ecosystem consisting of BPM service providers, RPA technology vendors, and specialist technology integrators
- Key future implications of RPA for the BPM industry are
 - Both revenue and margins can go up for the BPM service providers, if leveraged strategically
 - The work mix will get skewed towards judgment-intensive processes and consequently, also drive up the offshore service delivery value chain
 - The traditional FTE-based pricing construct will give way to output / transaction-based pricing
 - The share of technology/automation-based revenues in BPM will increase significantly

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The global business environment is going through fundamental shifts



Economic shift

- The global stock index volatility has increased by **50%** over the last 3 years
- The combined GDP of the developing economies is now greater than that of the developed countries

Technology shift

- **Over 6 billion** people have access to mobile phones but only 4.5 billion have access to toilets
- Every two days now as much digital information is created as was created from the dawn of civilization until 2003
- The share of data stored on the cloud is expected to **treble** in the next two years

Demographic shift

- The gap in the median age of the developed and developing economies is expected to increase by **20%** within the next decade
- Bulk of the developed countries is likely to experience significant talent shortage, impacting nearly **US\$ 10 trillion** of world GDP

Consumer preference shift

- Online sales are growing at 3X than store-based retail
- Consumption of services by households in the developing countries has increased significantly over the past to become nearly **twice** of product consumption

BPM industry needs to align its value proposition and underlying solution elements to remain relevant and thrive in this changing business environment

Source: BCG, eMarket, Forbes magazine, Oxford Economics, PayScale, Reserve Bank of Australia, TIME magazine, The Economist, United Nations, and Everest Group analysis

The underlying solution elements of the BPM industry need to align to the “new world reality”. Technology is an important lever to make it happen

Solution elements	Traditional	New world
Sourcing model	<ul style="list-style-type: none"> • Either-or (shared services / GICs versus outsourcing) 	<ul style="list-style-type: none"> • Hybrid (both shared services and outsourcing based upon situation)
Scope	<ul style="list-style-type: none"> • Functional and siloed approach, e.g., Accounts Payable (AP), Accounts Receivable (AR), and General Ledger (GL) 	<ul style="list-style-type: none"> • End-to-end process driven approach, e.g., Procure-to-Pay (P2P), Order-to-Cash (O2C), Record-to-Report (R2R) including judgment-intensive processes
Decision support	<ul style="list-style-type: none"> • Information (reporting) 	<ul style="list-style-type: none"> • Insight (predictive and prescriptive analytics)
Commercial model	<ul style="list-style-type: none"> • Input / FTE-based 	<ul style="list-style-type: none"> • Output and outcome-based
Technology model	<ul style="list-style-type: none"> • Tie-and-run model (no/limited technology play) 	<ul style="list-style-type: none"> • Augmentation and platform-based model • Automation

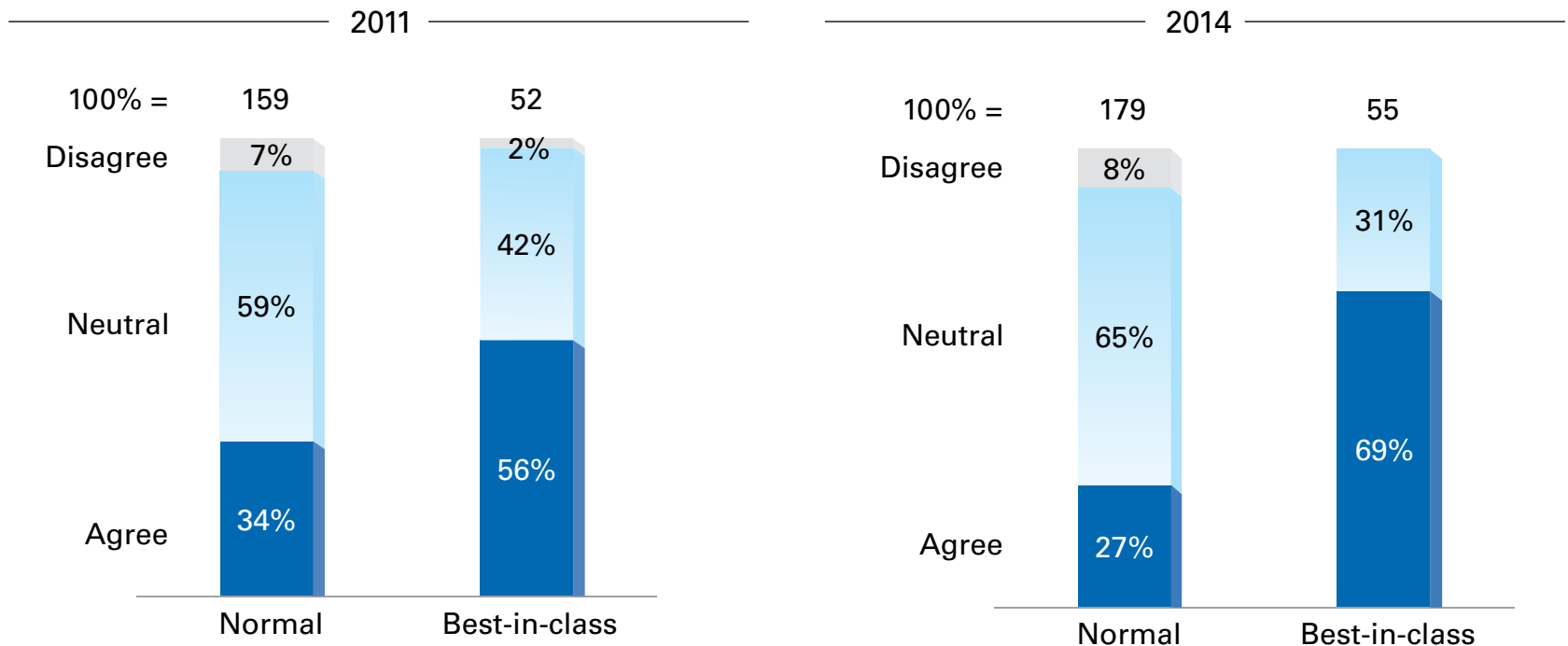
Source: Everest Group Best In Class BPM Survey (2015)

There is clear evidence of technology creating best-in-class BPM outcomes



Access to technology is important

Number of BPM buyers

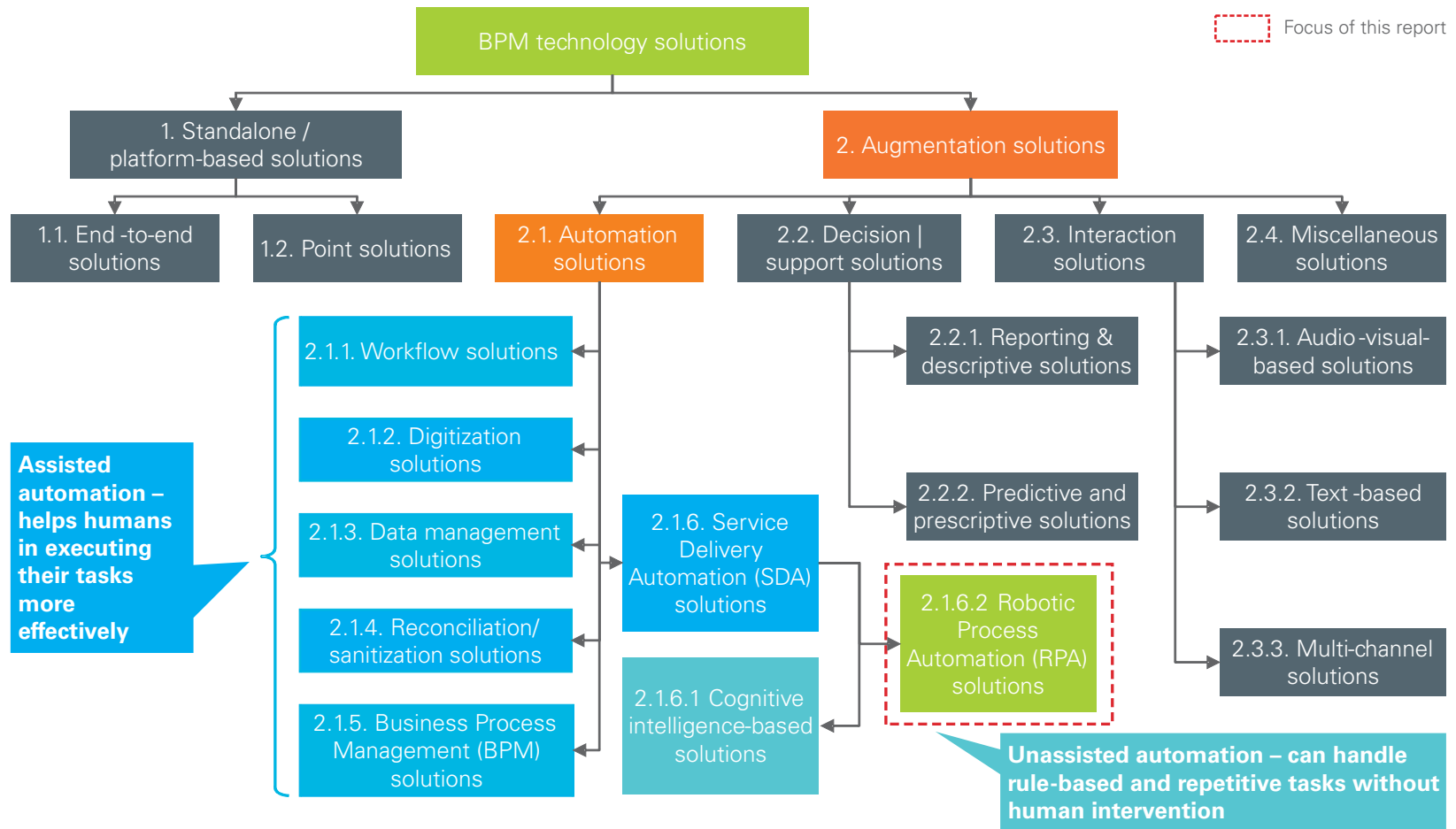


1 Best-in-class BPMs as defined as those which exhibit strong performance in terms of:

- Meeting financial objectives
- Meeting desired service levels
- Exhibiting low variability in performance levels

Source: Everest Group Best In Class BPO Survey (2015)

There is a wide array of technology solutions used in the BPM industry today. RPA is one of the newest forms of automation



Source: Everest Group (2015)

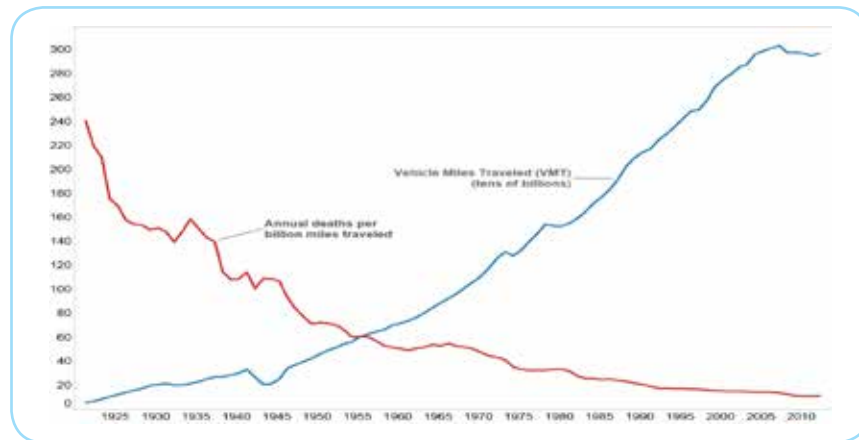
RPA, despite being among the newest technologies, has swiftly become one of the most important ones in the BPM space

What automation has done to flight safety...

Manual flight control



Automatic flight control



Source: United States Census Bureau

...RPA can do to business processes



Speed
Quality
Consistency

Definition and key characteristics of RPA in BPM

It refers to automation which interacts with a computer-centric process through the User Interface (UI) / user objects of the software application supporting that process.

A robot is usually a runtime environment on which different processes/tasks can be executed

RPA can process structured and semi-structured data

This type of integration through the UI is sometimes referred to as non-invasive

This is important to outsourcing service providers who are not allowed to modify client's IT systems

Example use cases

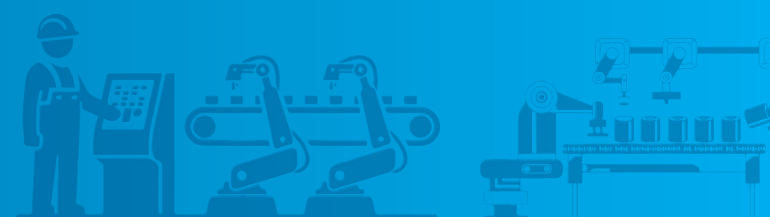
- Transaction processing
- Data entry in high-volume, repeatable, and computer-centric processes
- In system upgrade scenarios where double and concurrent data entry into old and new systems during the period of change

Some examples of robotic automation technology vendors:



Source: Everest Group (2015)

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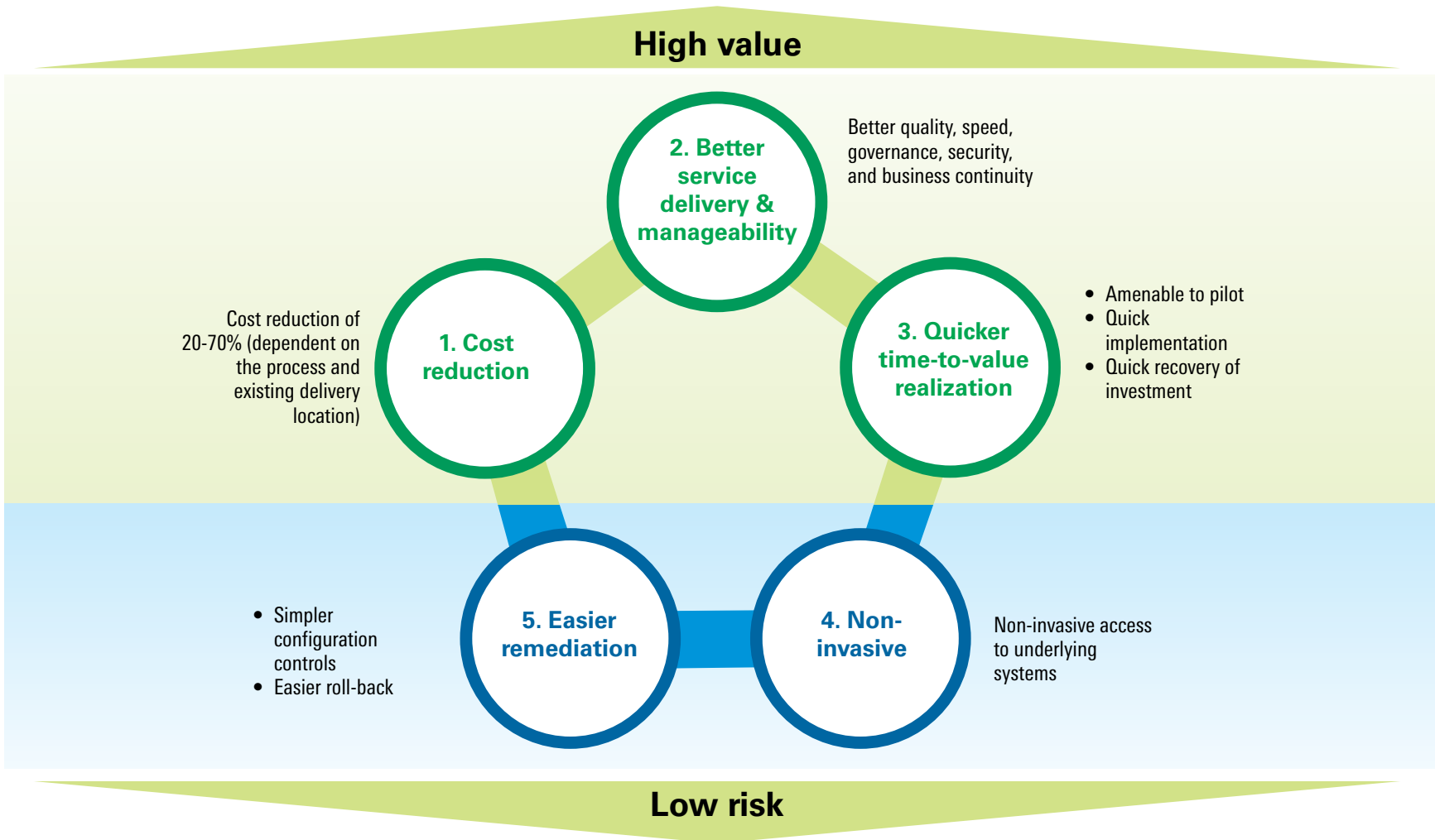
RPA business case and challenges – summary

An illustration in the top right corner shows a worker in a hard hat and safety vest standing next to a control panel. To the right, there are several robotic arms (RPA bots) positioned over a conveyor belt system, symbolizing automation in an industrial or manufacturing setting.

- Some features of RPA driving its increasing adoption are:
 - Cost reduction – can yield cost reduction of 35-65% for onshore process operations and 10-30% in offshore delivery
 - Better service delivery – can enhance process quality, speed, governance, security, and continuity
 - Short time to investment recovery – takes just 6-9 months for RPA implementation to recover its investments
 - Non-invasive nature – does not require IT architecture changes or deep integration with underlying systems
 - Easier management & control – can be managed easily for 70-80% of the rule-based processes
- However, there are some challenges with RPA that needs to be managed:
 - Resistance from client's IT team
 - Hidden costs, such as implementation, hosting, and maintenance
 - Lack of real-time visibility on part of the process the robot is working on
 - No strategic value as a standalone technology

Business case for RPA

RPA offers the potential for high value creation at relatively lower risk



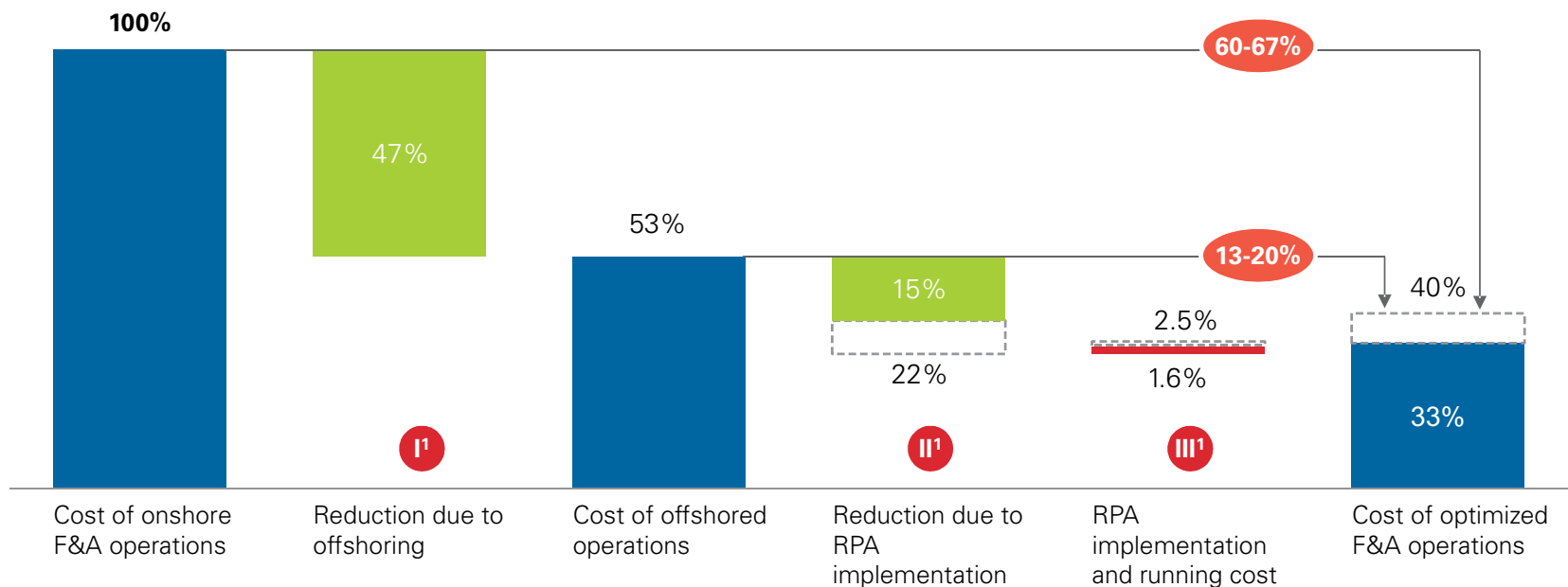
Cost reduction | Horizontal business processes

Cost reduction through RPA in Finance & Accounting (F&A) can range from 13-20% for offshore operations to 60-67% for onshore operations

Impact of RPA: F&A example

Percentage of reduction in cost

1a



- For onshore F&A operations, the cost of ownership of a robot doing transactional work is about a third of an FTE. Consequently, there is a strong business case for robots to take over such work and allow FTEs to do more judgment-oriented work

1 Please see Appendix for scenario details and key assumptions

Source: Everest Group (2015)

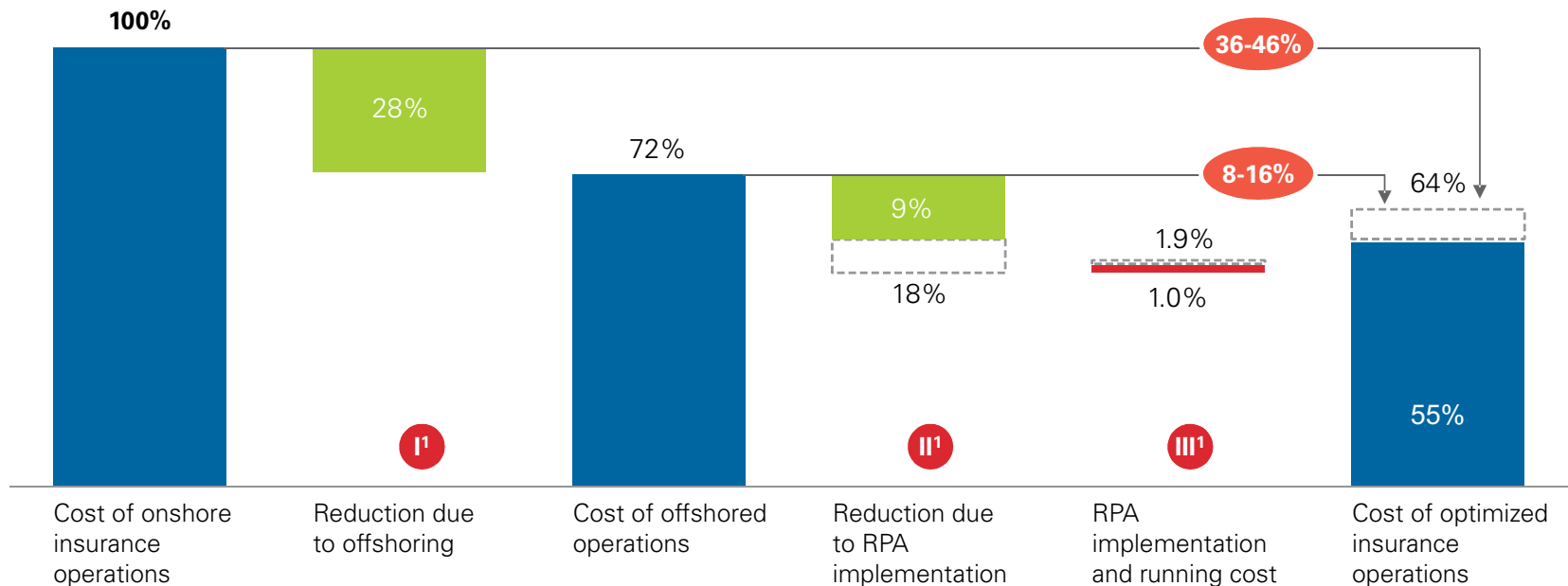
Cost reduction | Vertical-specific business processes

Cost reduction through RPA in insurance business processes can range from 8-16% for offshore operations to 36-46% for onshore operations

Impact of RPA: Insurance example

Percentage of reduction in cost

1b



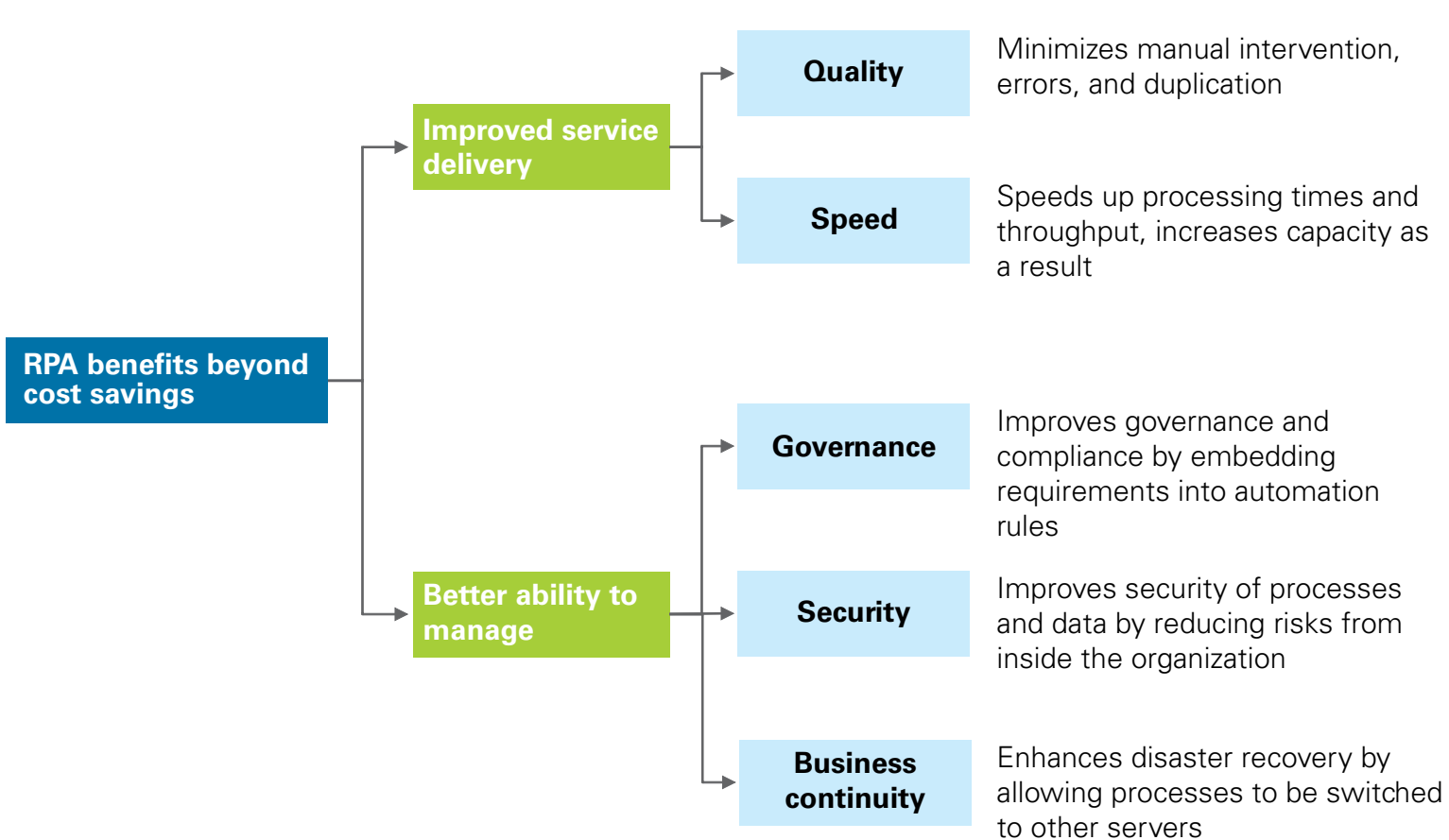
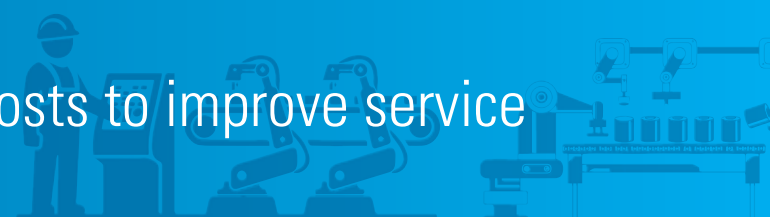
- While the percentage gains in the insurance industry-specific operations from RPA are lower compared to F&A, given the larger base of existing cost, the absolute value of impact can still be very significant

1 Please see Appendix for scenario details and key assumptions

Source: Everest Group (2015)

Better service delivery & manageability

Importantly, the benefits of RPA go beyond costs to improve service delivery plus better ability to manage



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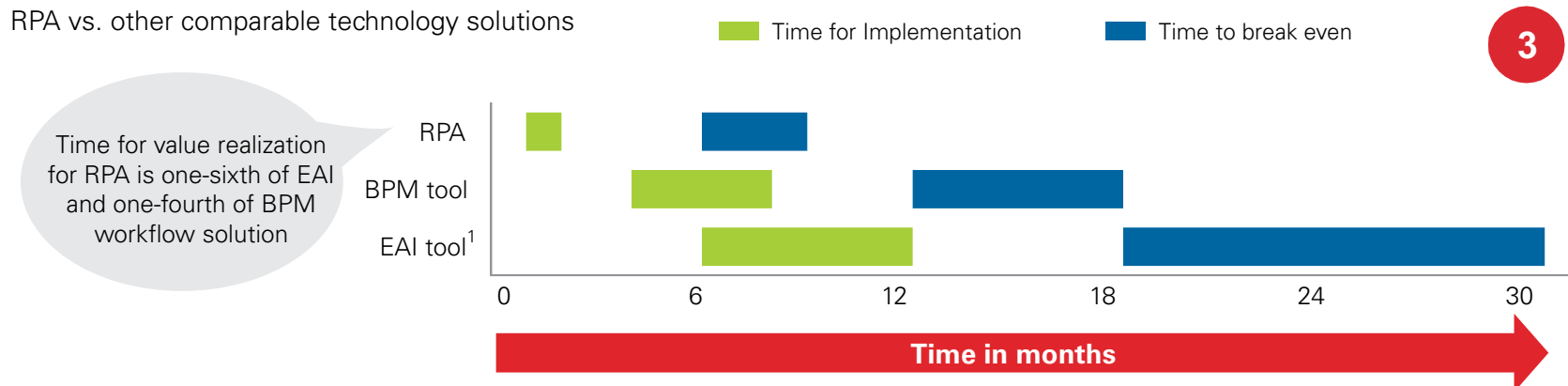
Source: Everest Group

Quicker time-to-value, non-invasive nature, and easy to manage

RPA can also provide the return on investment in as little as 6 months

Time-to-value realization

RPA vs. other comparable technology solutions



3

Time for value realization for RPA is one-sixth of EAI and one-fourth of BPM workflow solution

Non-invasive

4

“ RPA is the not the only way to solve the problems it is solving; its advantage lies in its quick deployment (within weeks), easy configuration, and non-intrusive nature ”

– Leading BPM service provider

“ RPA creates differential value with non-invasive methods and also brings in efficiencies ”

– Leading GIC

Easier remediation

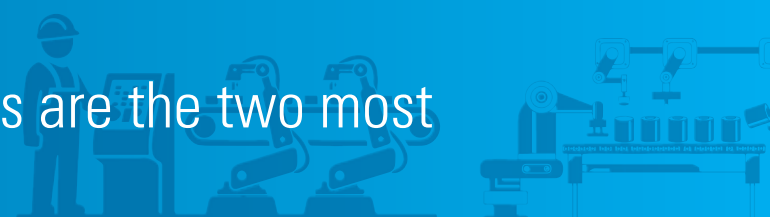
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- RPA requires only minor software programming for rule-based processes
- Most of the RPA tools have multiple system access levels, e.g., configuration, viewing, execution, halting, and managing exceptions
- Almost all the third-party RPA solutions have roll-back features in case the system fails to deliver the desired gains

¹ Enterprise Application Integration software
Source: Everest Group (2015)

Challenges

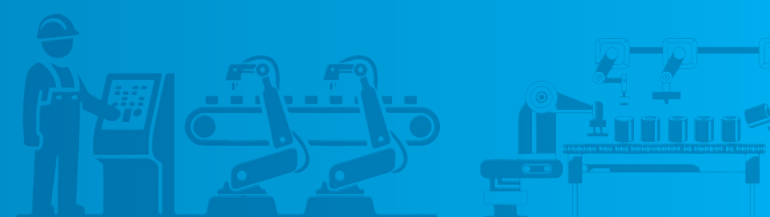
Resistance from the IT team and hidden costs are the two most frequently raised concerns around RPA



Market participants' concern	Inference	Potential solution
Resistance from IT team "IT folks often have resistance because of two misconceptions: <ul style="list-style-type: none"> • RPA can be intrusive • It will require IT architecture changes" 	<ul style="list-style-type: none"> • Client IT teams often have apprehensions around data security and integrity of systems • There are concerns around intrusion of RPA in their area of expertise 	The IT team needs to be apprised the safeguards put in place and made part of the governance team
Hidden costs "Build cost will always be there – configuration & customization cost plus maintenance fee will always be there"	Hidden costs are associated with RPA include: <ul style="list-style-type: none"> • Upfront costs (such as consulting and implementation) • Recurring (e.g., configuration and customization costs) 	Additional costs form a substantial component and need to be taken into account while analyzing the business case for RPA
Issues of visibility "With multiple robots running multiple applications, it becomes difficult to pinpoint which robot is executing what"	Robots often run processes in the background, providing less opportunity for monitoring and control for process owners	Setting up a control tower for monitoring and managing the robots and the tasks executed by them is essential for unlocking full gains
Not significant in itself "RPA is just a lever to move the needle on efficiency gain – if you consider that as the differentiator, you have missed the point"	RPA is just a lever for cost reduction through faster processing and higher accuracy	For sustained gains, RPA needs to be part of a wider technology strategy

Source: Everest Group (2015)

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Current market adoption and future outlook – summary



- Reflective of its pioneering stage, the BPM spend impacted by RPA in terms of value is currently low (US\$ 125-175 million). However, this spend is growing at a CAGR of over 100% over the last two years and expected to show further acceleration to impact 30-40% of BPM spend in the long-run
- The potential for RPA varies by industry and horizontal business functions. Invoice processing, order processing, and claims management are some the processes with high RPA potential
- North America accounts for over half of the RPA market and Europe for another one-third. Large enterprises¹ comprise ~70% of the current adoption
- Traction for RPA is higher among existing BPM buyers and is growing faster as compared to the adoption among new buyers
- Almost all service providers have built support capabilities for RPA
- Leading GICs are actively engaging with RPA technology vendors and building in-house teams for solution configuration and maintenance

Source: Everest Group (2015)

We have analyzed RPA adoption along multiple parameters



Reflective of its pioneering stage, the BPM spend impacted by RPA in terms of value is currently low. However, it represents significant and accelerated growth potential

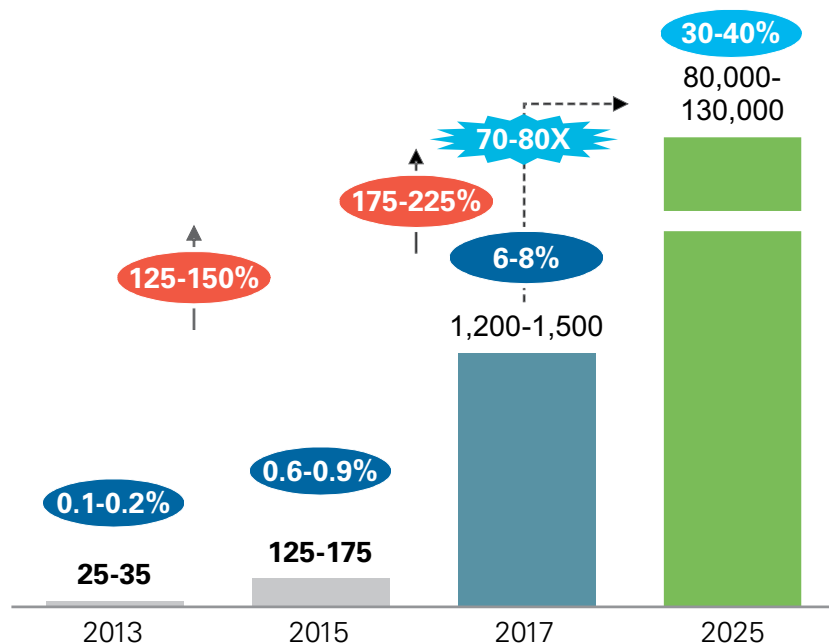
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BPM spend impacted² by RPA

US\$ million

XX% Percentage penetration of the addressable spend¹

XX% CAGR over two years



- The current BPM spend impacted by RPA, estimated to be US\$125-175 million, comprises just less than 1% of the addressable market
- However, due to a strong business case it is showing remarkable growth
- The growth in the near future is likely to be even more stark because of the following reasons:
 - With pilots continuing to be successful, they will be advanced into full scale deployments
 - Success of the early adopters will inspire confidence among other buyers to adopt RPA more rapidly

1 Addressable spend is defined as the BPM spend on the business processes (or parts of business processes) where RPA can be applied

2 Impacted spend is the BPM spend on the business processes (or parts of business processes) where RPA has been applied

Note: Total BPM spend is the spend by buyers on business process management either through GICs or through outsourcing to BPM service providers

Source: Everest Group (2015)

The RPA opportunity varies by industry and function. Regulated industries with high-volume and transactional business processes offer the most potential

2

Potential for RPA Low High

• XX Illustrative processes with higher potential

RPA adoption potential by buyer industry and function¹

Banking & financial services						<ul style="list-style-type: none"> • Cards activation • Frauds claims discovery
Insurance						<ul style="list-style-type: none"> • Claims processing • New business preparation
Healthcare & pharma						<ul style="list-style-type: none"> • Reports automation • System reconciliation
Manufacturing & retail						<ul style="list-style-type: none"> • Bills Of Material (BOM) generation
Hi-tech & telecom						<ul style="list-style-type: none"> • Service order management • Quality reporting
Travel & logistics						<ul style="list-style-type: none"> • Passenger revenue accounting • Ticketing
	F&A	Procurement	Human resource	Contact center	Industry-specific processes	
	Accounts receivable, accounts payable, general ledger	Invoice processing, requisition to purchase order	Payroll, hiring candidate management	Customer service		

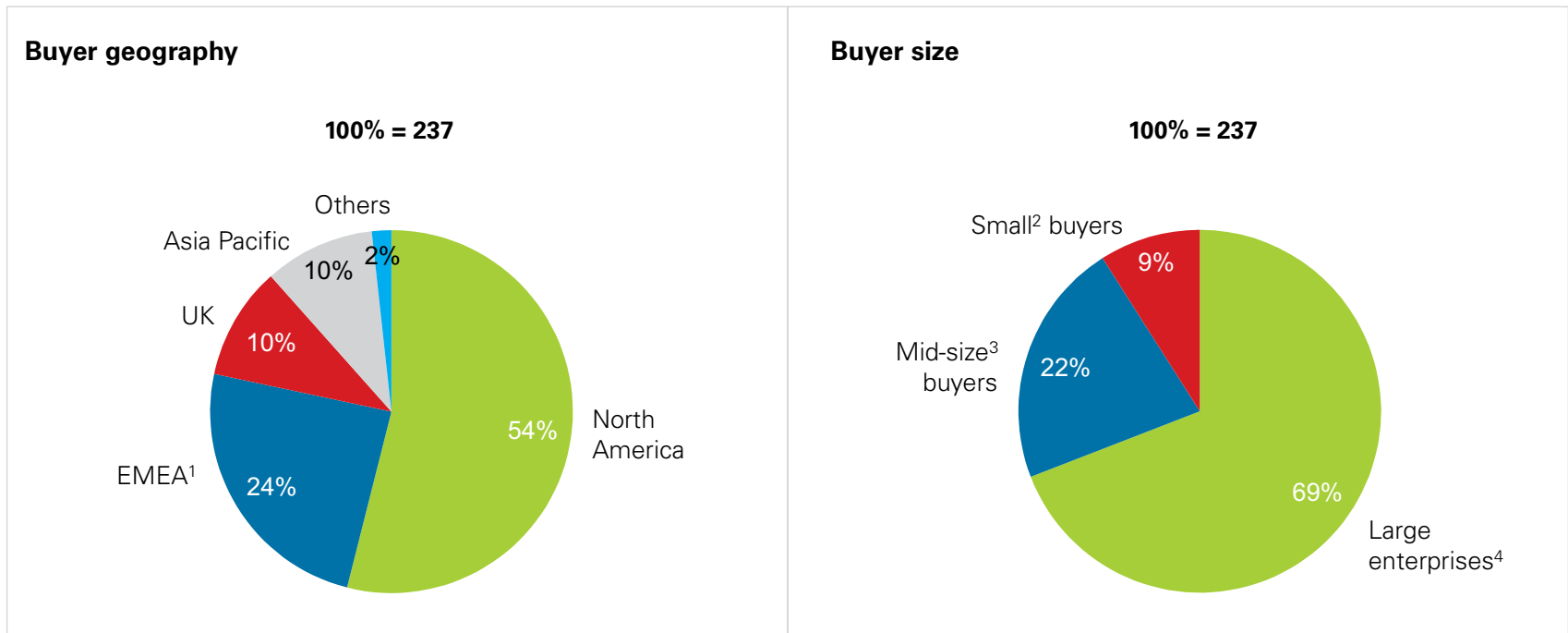
¹ Please see Appendix for details
Source: Everest Group (2015)

Large enterprises in North America and Europe are at the forefront of RPA adoption

3

RPA solution provider landscape

Number of buyers



1 Apart from UK

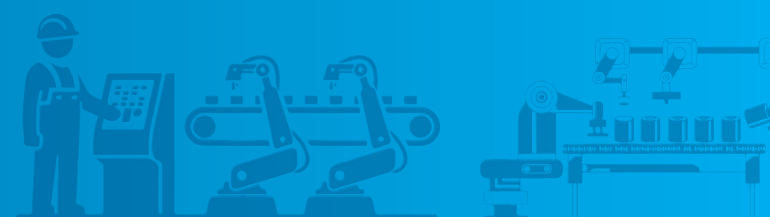
2 Revenue of less than US\$1 billion

3 Revenue between US\$1 billion and US\$5 billion

4 Revenue greater than US\$5 billion

Source: Everest Group (2015)

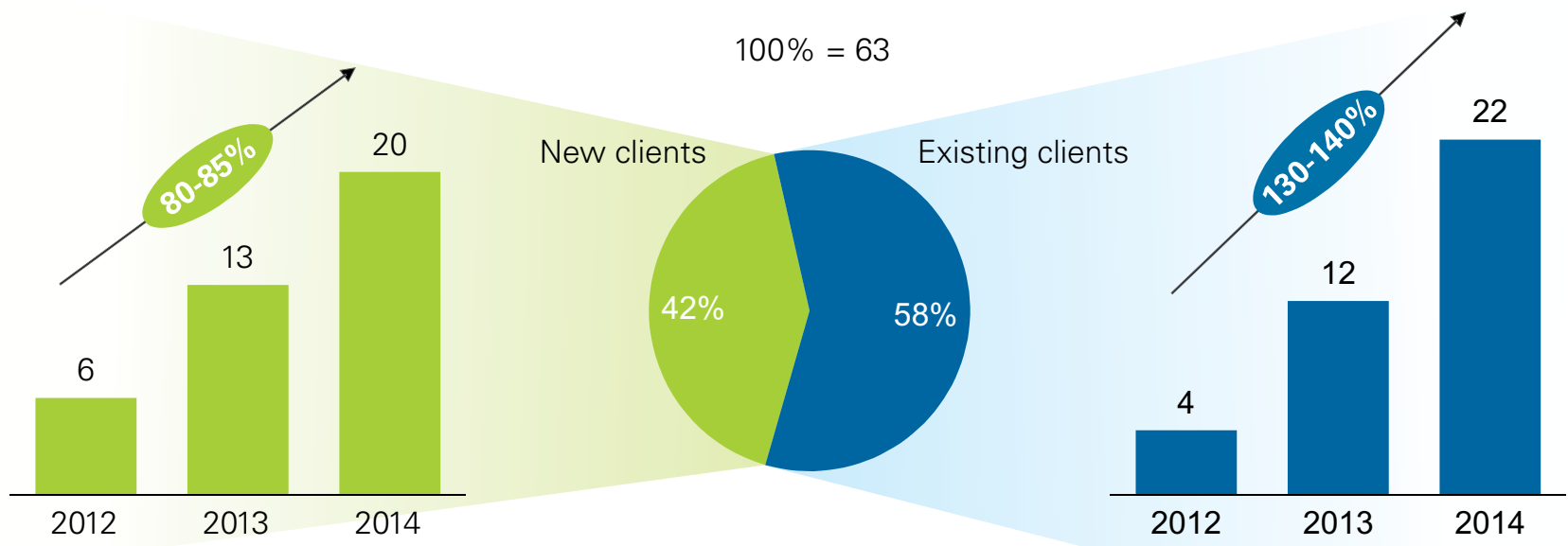
Existing BPM buyers lead RPA growth



4

RPA inclusion in new and renewed contracts
2013-2014; contracts with RPA in scope

FAO EXAMPLE



- Both new and renewed/extended contracts have registered an increased inclusion of RPA
- However, existing buyers are exhibiting a higher growth of adoption
- This may be attributed to the more streamlined processes of existing BPM services buyers and hence, more suitable for RPA implementation

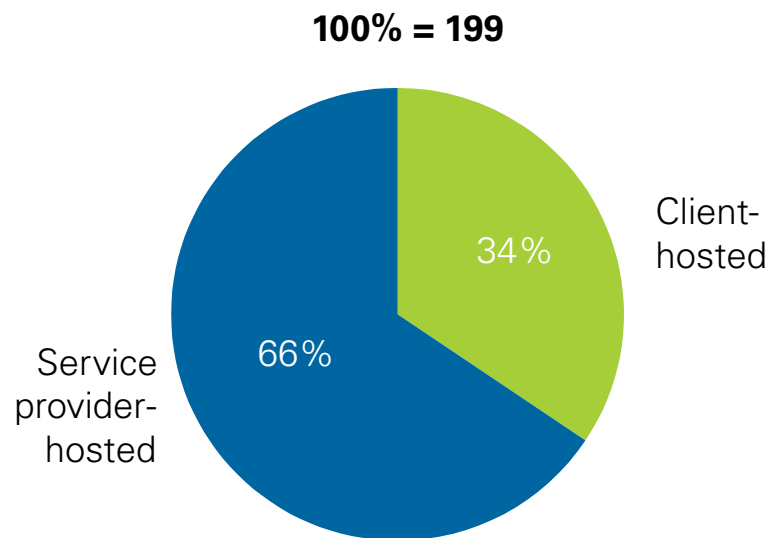
Source: Everest Group (2015)

Implementation and support for RPA technology is typically handled by BPM service providers

5

Hosting of RPA solution

Number of contracts with RPA in scope



- BPM service providers have built dedicated teams for RPA implementation and support. About 10-30% of the technology FTEs with BPS teams are dedicated for RPA
- Almost 100% of RPA implementation is being managed by the service providers themselves
- Service providers are also hosting solutions on their servers / cloud-environment for delivering better value to clients

Source: Everest Group (2015)

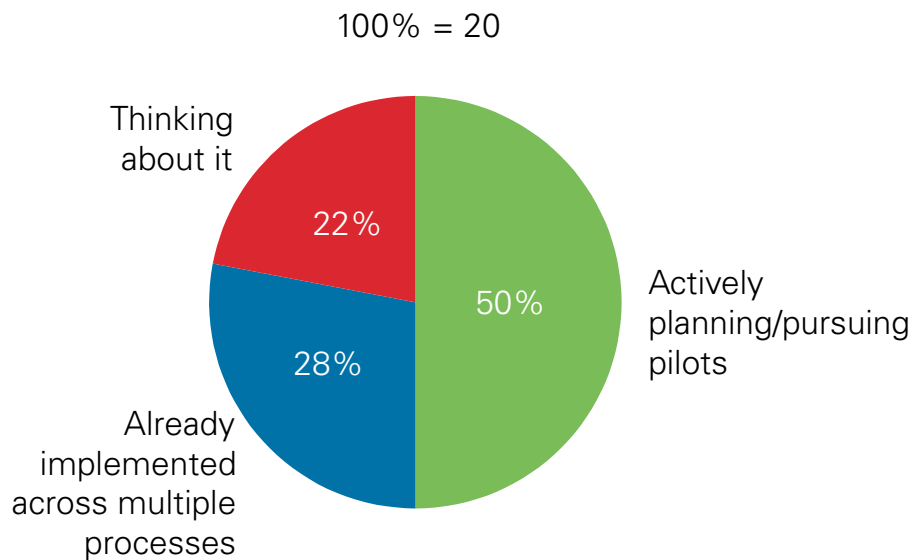
RPA is high in the priority for most GICs



RPA GIC survey response

Stages of RPA journey

6



- Leading adopters have deployed RPA across multiple processes and have started reaping benefits of greater operational efficiencies
- Most GICs are approaching the RPA technology vendors directly for automating their processes
- Moreover, some are also building in-house teams for managing RPA on an on-going basis

“The decision regarding RPA is not around whether to do it or not. It is rather about the approach: by geography, by process, etc.”

– Country head of India GIC,
Leading Australian bank

“We have more than doubled the headcount in our in-house RPA team in the last 12 months or so”

– Country head of India GIC,
Leading UK bank

Source: Everest Group (2015)

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RPA supplier ecosystem and operating models – summary











- The RPA technology supplier ecosystem consists of three key participants:
 - BPM service providers
 - RPA technology vendors
 - Specialist technology integrators
- The RPA suppliers are following a strategy of coopetition. The three approaches at play are as follows:
 - **Independent approach:** The BPM service providers and RPA technology vendors approach the clients independently with their respective solutions and implementation services
 - **Joint development approach:** The BPM service provider and RPA technology vendor work together to develop a solution. The service provider takes the solution to the clients
 - **Licensing approach:** The BPM service provider / specialist technology integrator enters into a licensing agreement with the RPA technology vendor and offers RPA to clients as:
 - A reseller for the RPA technology vendor's technology and offering RPA as a standalone solution
 - As part of the wider BPM technology solution (only in case of BPM service provider)
- The buyers can choose one of the following RPA sourcing models:
 - **RPA tool sourcing:** The buyer purchases only the license and manages the implementation and maintenance by itself
 - **RPA solution sourcing:** The buyer sources both RPA license and services around consulting, implementation, and maintenance for RPA
 - **RPA-embedded BPM sourcing:** The buyer sources RPA as part of the broader BPM contract with RPA-specific consulting, implementation, and maintenance services included within it

The RPA supplier ecosystem consists of three key participants: BPM service providers, RPA technology vendors, and specialist technology integrators






Source: Everest Group

There is a co-competition strategy at play within the RPA ecosystem leading to different approaches to the market

Solutioning approach	BPM service providers	RPA technology vendors	Specialist technology integrators
Independent approach	<p>Develop, deploy, and maintain in-house RPA solution</p> <p>Example:</p> 	<p>Work directly with buyers for implementation and support</p> <p>Example:</p> 	
Joint-development approach	<p>The BPM service provider and RPA technology vendor work together to create solutions and take it to clients</p> <p>Example:</p>  		
Licensing approach	<p>The BPM service provider signs a licensing agreement with the RPA technology vendor</p> <p>Example:</p>  		
		<p>The specialist technology integrator enters into a licensing agreement with the RPA technology vendor</p> <p>Example:</p>  	

Source: Everest Group (2015)

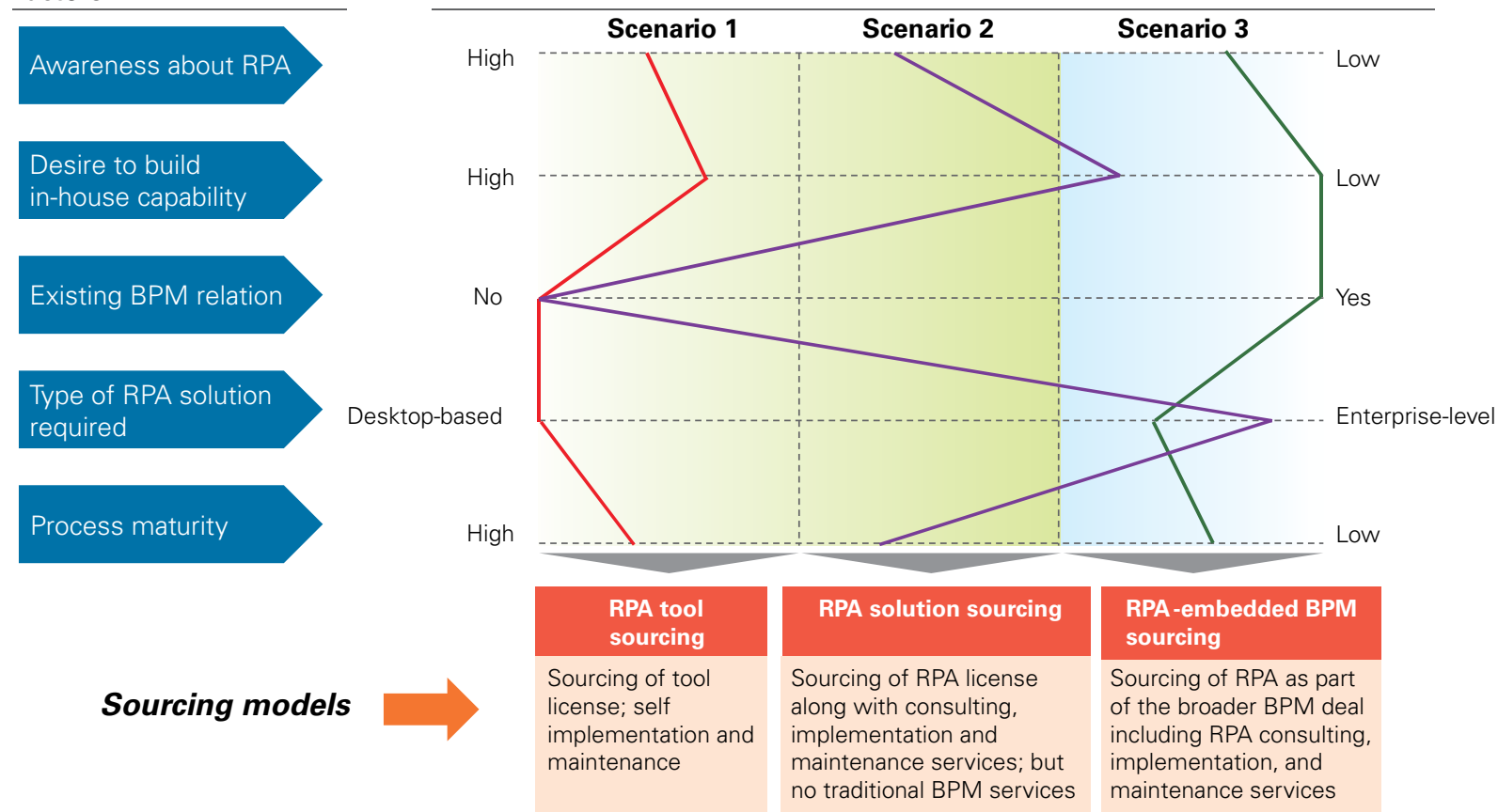
Further, buyers have the option to choose from various RPA solution types based on their requirements

Solution types	Description	Characteristics	Example of vendors
Desktop-based	RPA hosted on the desktop of the user like any other application software; requires small or no programming effort	<ul style="list-style-type: none"> • Works as a personal assistant by integrating applications and data • Limited capability to run processes at back-end without human intervention • Usually priced based on license (perpetual or periodic) 	
Enterprise-oriented	Robots typically hosted on a server which can be assigned tasks (as workflows) through multiple terminals; typically requires some programming effort, e.g., for deploying connectors with underlying systems	<ul style="list-style-type: none"> • Functions as a network of automated FTEs running processes at the back-end • High flexibility in terms of handling almost all types of rule-based processes • Pricing usually more complex than desktop-based solutions, with charges for consulting, implementation, and maintenance 	
Mix of both	RPA solution is flexible to be deployed on desktop or at the enterprise level, depending upon client requirements	<ul style="list-style-type: none"> • Modular structure – a fundamental component sufficient for desktop mode and optional component(s) needed for server-based operations 	

Source: Everest Group (2015)

Buyers need to evaluate a number of factors to choose an appropriate RPA sourcing model

RPA sourcing model framework



Source: Everest Group (2015)

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Case study 1

Leading UK investment bank leveraged RPA to achieve 80-85% time saving in its management reporting and indexing processes

Business situation

- A leading UK investment bank wanted to automate its reporting and indexing processes
- Manual intensive control and management reporting could lead to errors impacting data integrity and interpretations
- Over 65 daily reports were automated along with other processes such as indexing and reconciliations

Implementation approach

- The solution adopted was BPM service provider's proprietary automation platform
- Automation was done in the following manner:
 - Robot scans document to identify and extract required key fields, validates data and enters it into the document manager application
 - Robot is programmed to be template-agnostic and could execute different templates
 - Robot automatically routes exceptions

Key learnings

- Adoption of processes to the RPA solution leads to optimum utilization as opposed to complete process re-engineering
- It is essential to understand the limitations of the RPA solution and have a strong exception handling system in place
- Speed of processing may be dependent on external server latencies. Hence the entire RPA process chain needs to be optimized for best utilization

Business situation

- 100% accuracy achieved in the transactions processed by RPA in first roll-out itself
- All the reporting processes and 90% of indexing processes automated post RPA implementation
- 85% time saving for indexing and 80% time saving for reporting
- Took just six days of coding time excluding testing/waiting days

Source: Everest Group

Case study 2

Leading Australian bank leveraged RPA to reduce response time by 50-65% and to upskill resources towards more productive processes

Business situation

- A leading Australian bank operating in 32 countries faced multiple challenges:
 - Increasing volume of operations
 - Variability in volumes
 - Compliance issues
 - Low margins
- The company was looking to enhance its margins as part of its multi-decade cost-out strategy
- Finally, the company was looking to enhance customer experience as a differentiation lever

Implementation approach

- The solution followed was an RPA technology vendor's automation tool
- Process teams were asked to volunteer for RPA implementation. Following processes were automated:
 - Transaction tracing process for retail customers
 - Balance (audit) certificate issuance for corporate clients
 - Progress payments for infrastructure loans
 - Property discharge from existing loan arrangement

Key learnings

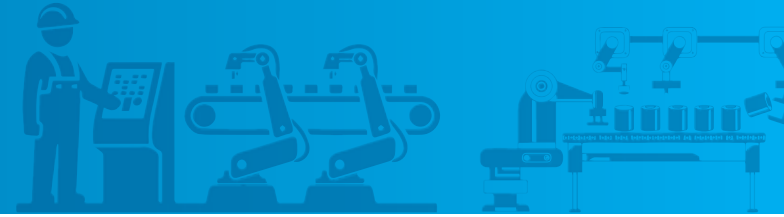
- Buy-in from the client organization: It is important for project sponsors to motivate process teams to drive change. Moreover, these teams should have some flexibility to experiment with the tool. This can generate higher sense of acceptance and ownership
- Exception handling: There should be realistic expectations around the volume of tasks that RPA can handle. Trying to embed exception management in the system for 100% of the tasks can increase the implementation and testing time manifolds

Business situation

- Reduced the turnaround time for transaction tracing requests by more than 50%
- Time taken for payment processing reduced by ~65%
- The number of manual steps required for setting up a new account reduced from 27 to just two
- Achieved 100% accuracy across all processes handled by RPA

Source: Everest Group

Learnings from early adopters



Organizational readiness

- Positive alignment is essential across all stakeholders – top management, process owners, and technology stakeholders
- Change management is an integral part of the RPA effort and must be a priority. It includes:
 - Upskilling and redeployment of FTEs involved in processes to be automated
 - IT strategy defining security and control measures in an automated process delivery environment

Process viability

- RPA is among the most effective rule-based and consistent processes
- An internal process audit to gauge viability of RPA solutions is a must before RPA implementation
- A phased approach to RPA, beginning with pilot projects, offers the most optimized deployment methodology
- Organizations must account for exceptions and manual decision-making

The RPA impact

- Pilot-phase processes should be well-suited for RPA and should ideally showcase a high-impact tangible business benefit in short time to promote RPA in the broader organization

Build capability

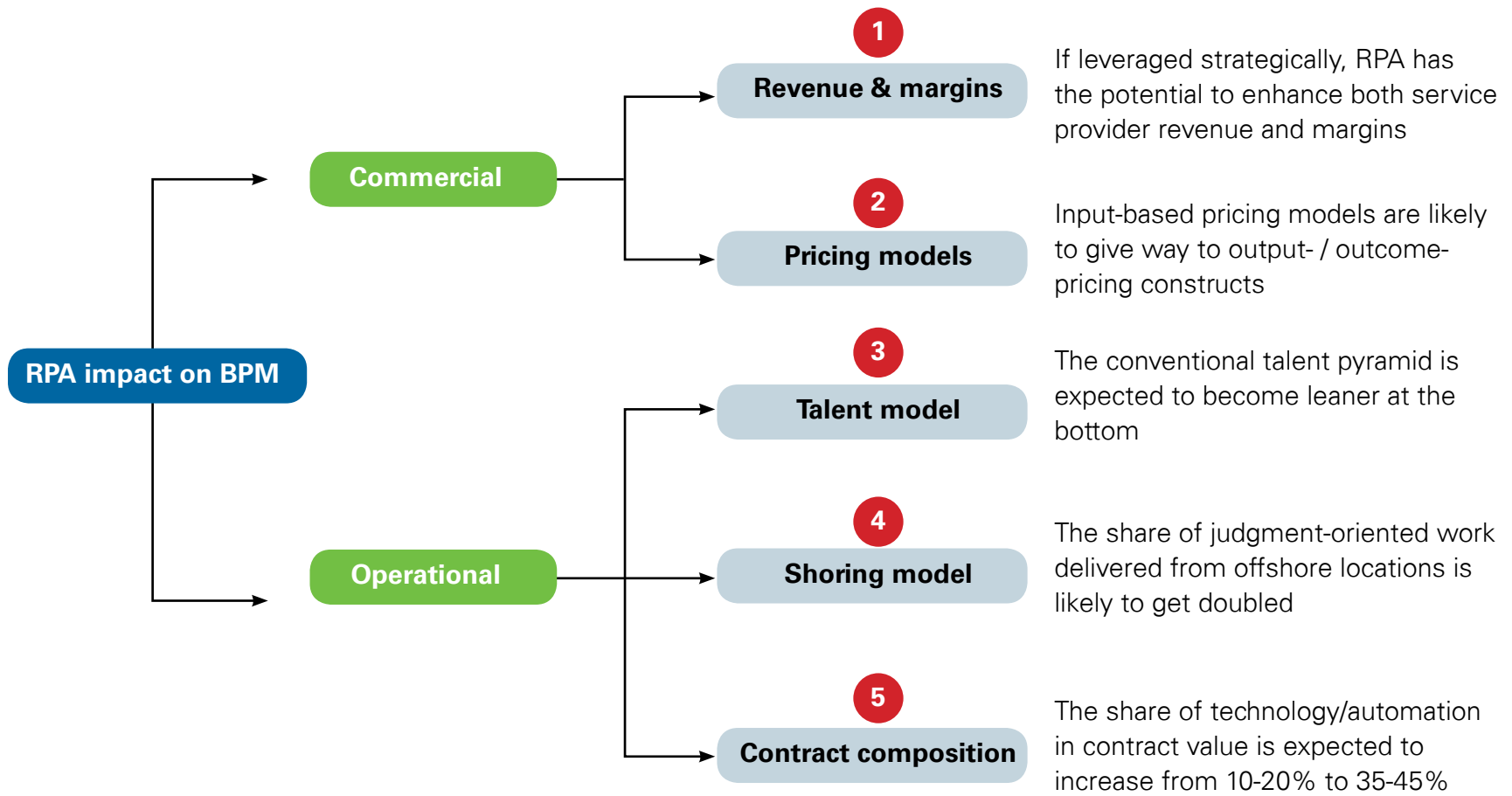
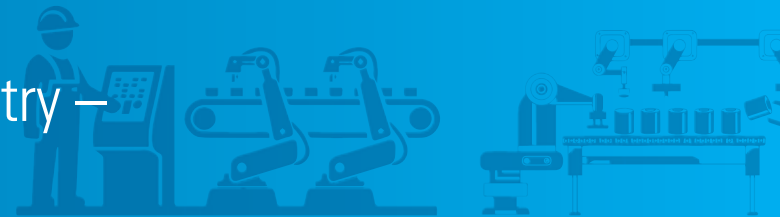
- Buyer must also develop internal capabilities to manage and maintain RPA environment
- Buyers need to develop a resilient approach to RPA deployment to overcome challenges around vendor acquisitions, outmoding of technologies, etc.

Source: Everest Group

Agenda



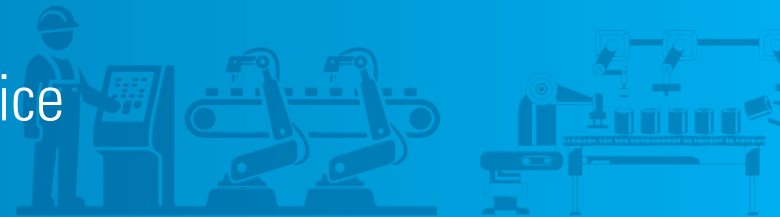
Future implications of RPA on the BPM industry – a new world order – summary



Source: Everest Group (2015)

Service provider revenue

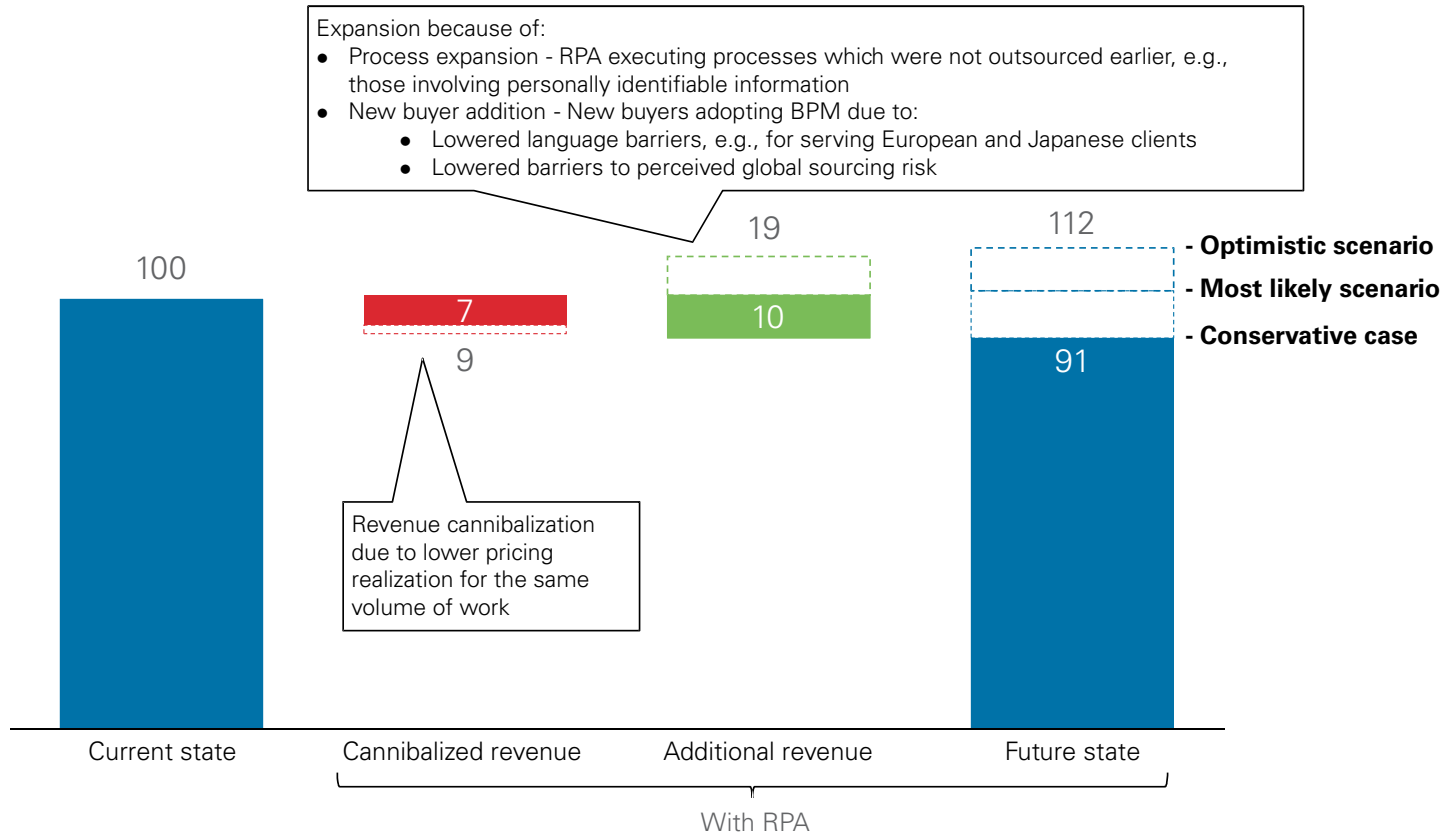
RPA can have a positive impact on BPM service provider revenue, if leveraged strategically



1a

Impact of RPA on BPM revenue Indexed

ILLUSTRATIVE



Source: Everest Group (2015)

Service provider margins

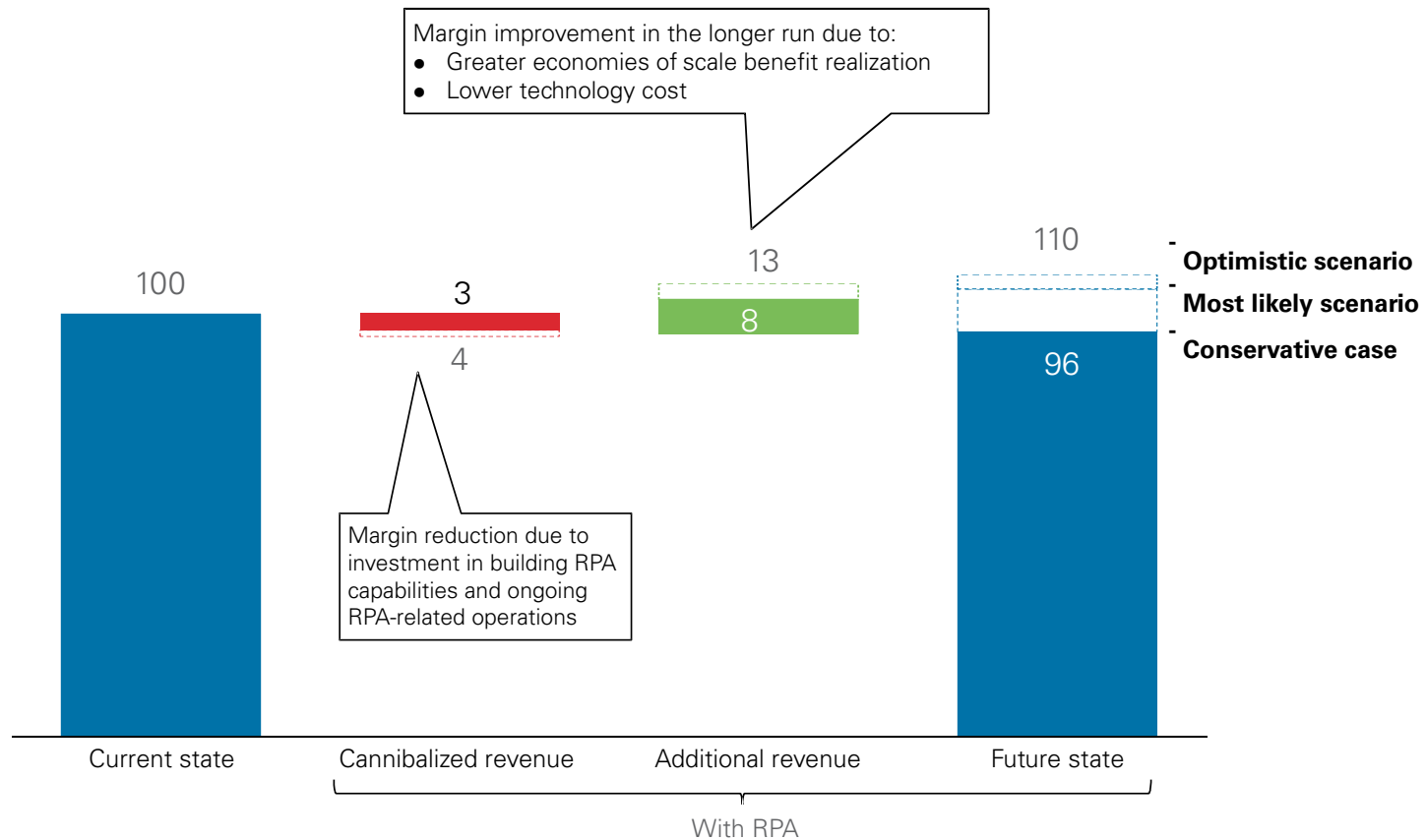
Over the long run, higher inclusion of RPA in contracts is expected to increase service provider margins

1b

Impact of RPA on BPM margins

Indexed

ILLUSTRATIVE



Source: Everest Group (2015)

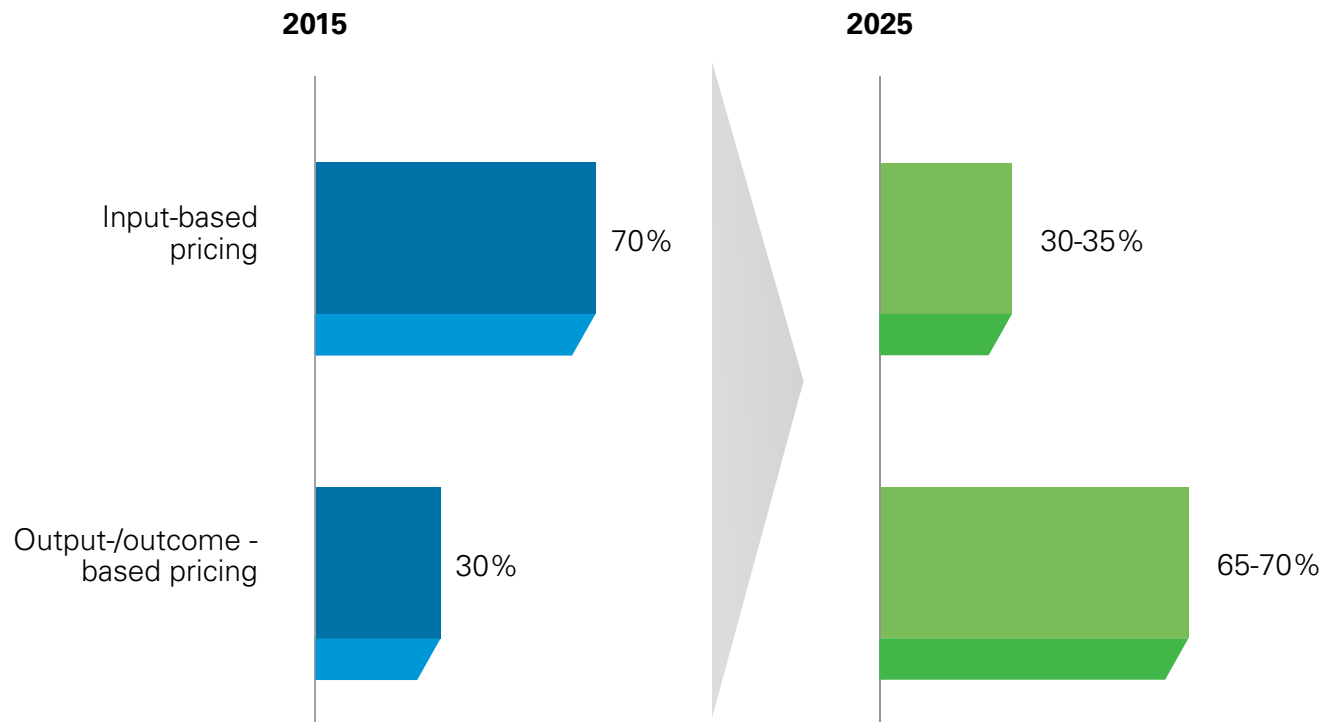
BPM contract pricing models

The traditional FTE- / input-based pricing construct is likely to give way to output and outcome-based pricing models

2

Frequency of inclusion of different pricing models

FAO EXAMPLE



Source: Everest Group (2015)

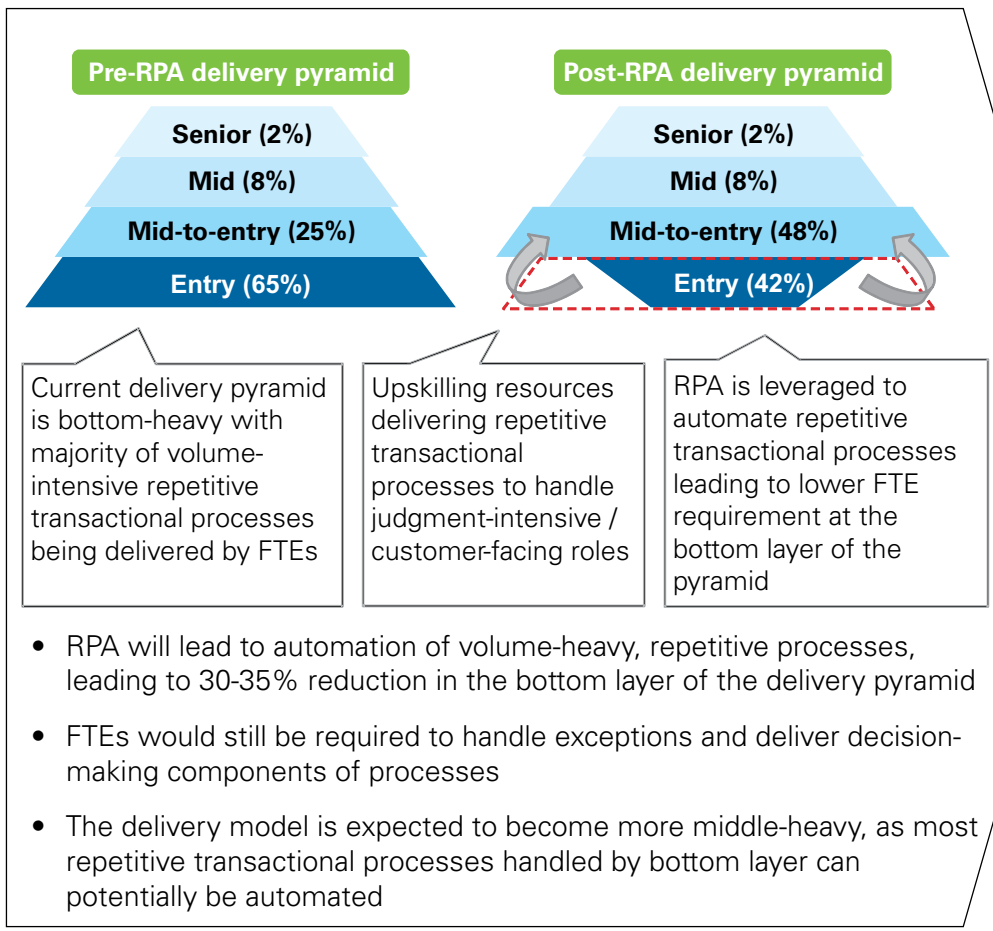
Service provider talent model

RPA will change the BPM talent model, leading to a more middle-heavy delivery pyramid



3

ILLUSTRATIVE



Key implications on the delivery model

- **Upskilling of resources:** Service providers deploying RPA solutions have plans in place to upskill bottom layer of the pyramid and redeploy it in either more complex / judgment-intensive processes or customer-facing roles
- **Recruitment and training engine overhaul:** RPA may also potentially require companies to overhaul their recruitment and training engine to hire and train skilled FTEs with greater domain competencies capable of handling more judgment-intensive processes
- **Talent retention strategies:** RPA may also lead to better talent retention, as attrition for complex processes is notably lower than attrition for transactional and repetitive processes

Source: Everest Group (2015)

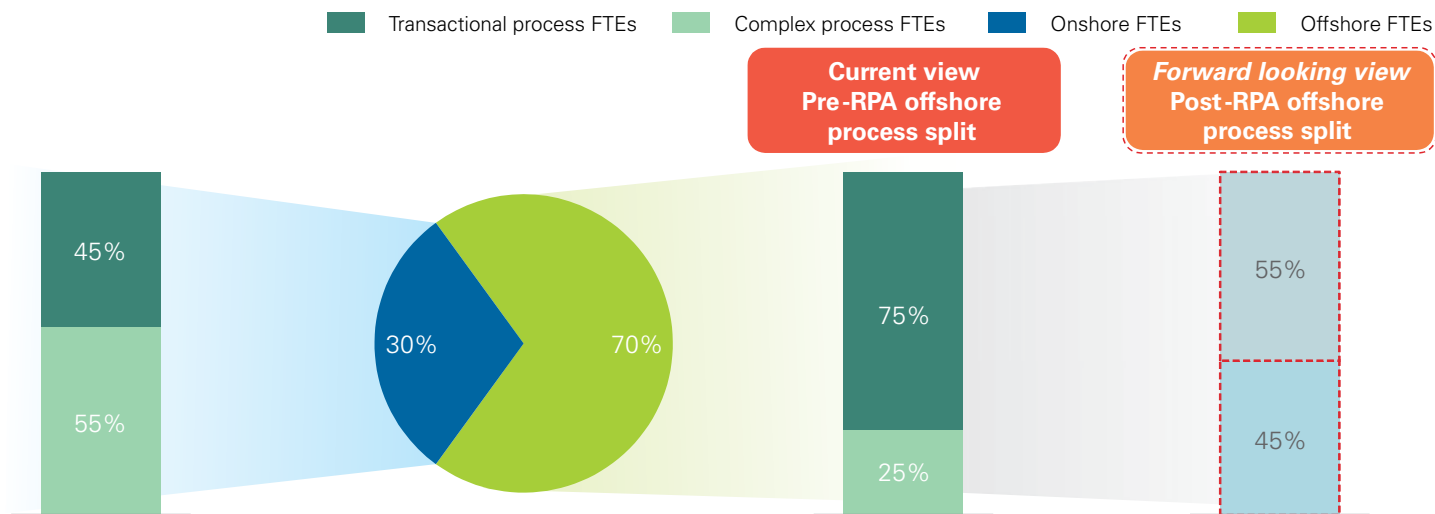
Service provider shoring model

RPA will drive up the offshore service delivery value chain towards high-value processes

4

Shoring model across process types

ILLUSTRATIVE

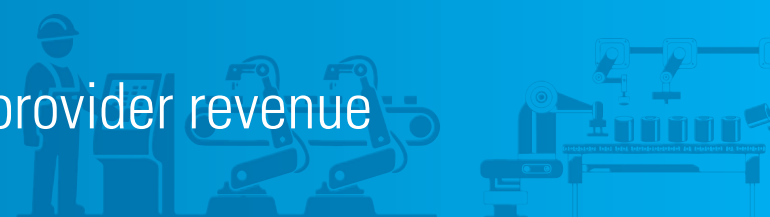


- Currently, offshore locations are largely leveraged for transactional processes. RPA has the potential to upend this
- Most transactional processes delivered from offshore locations can be automated by RPA. This would allow potential offshoring of high-value work without any infrastructure expansion or offshore headcount increase
- Service providers embarking on an RPA journey should be mindful of the potential change achievable in the shoring model and should build following capabilities alongside RPA:
 - Upskilling FTEs delivering transactional processes
 - Recruiting more domain-experts and high-quality talent

Source: Everest Group (2015)

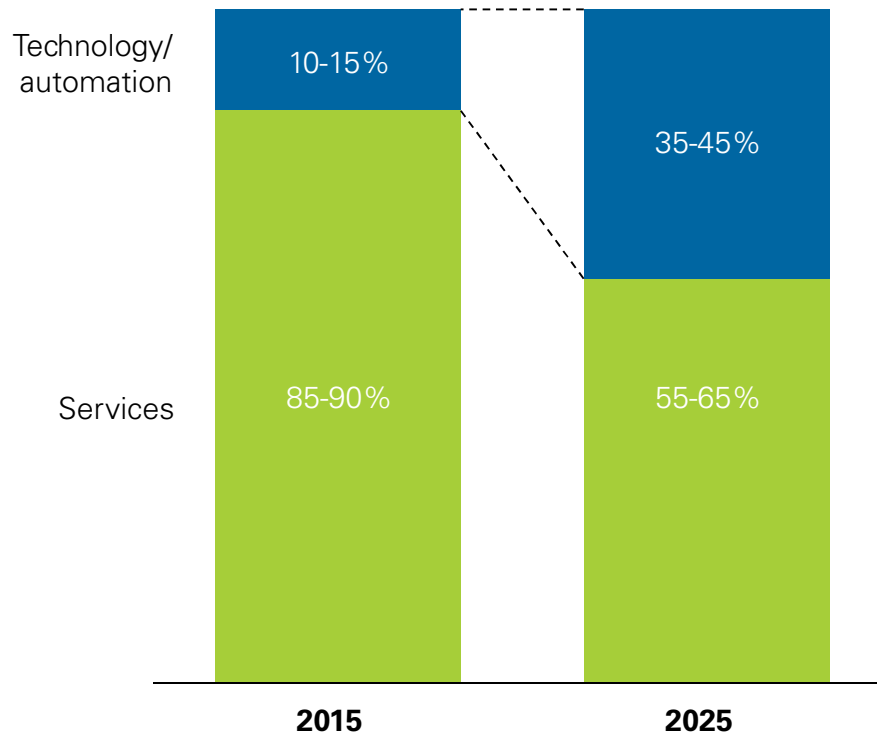
Share of technology in BPM contacts

The share of technology in the BPM service provider revenue mix is expected to witness a major increase



Revenue mix of BPM service provider

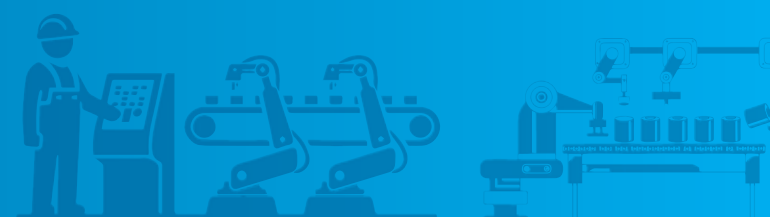
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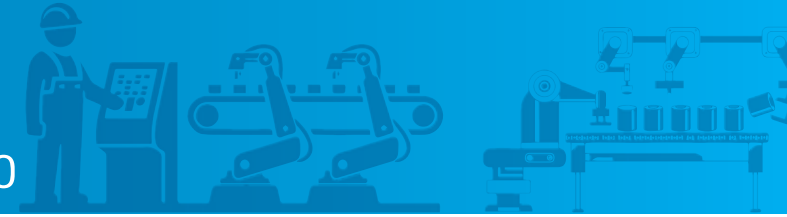
- With RPA transitioning from being assisted systems to unassisted ones, the share of work managed by technology is expected to rise dramatically
- This will have a direct consequence on the average share of technology in the BPM contract value

Source: Everest Group (2015)

Agenda



Impact of RPA on the F&A function | Scenario



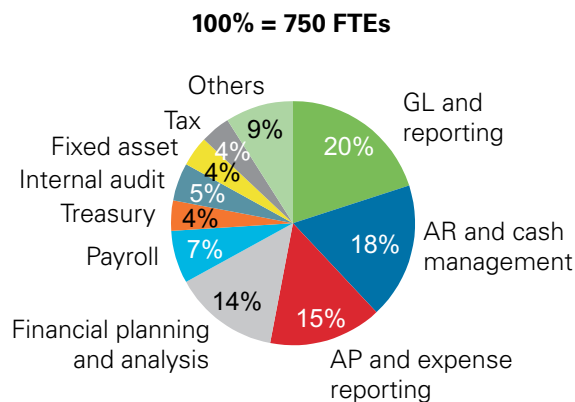
Key estimations and assumptions undertaken to analyze the impact of RPA

Overall organization size and F&A function characteristics

- An organization with the annual revenue of US\$10 billion has been considered
- Typical size of the F&A functions for such an organization are estimated at 750 FTEs
- All F&A FTEs have been appropriately distributed among different processes (see chart)

Split of F&A FTEs by process in a typical organization

Percentage of FTEs



1. Cost reduction due to offshoring/outsourcing

- All F&A processes have been outsourced/offshored to the maximum extent possible
- Cost reduction due to offshoring/outsourcing only includes the labor arbitrage component
- Majority of the transactional work is delivered from offshore locations

2. Cost reduction due to RPA implementation

- A typical RPA license replaces 3 FTEs
- Given that RPA is utilized to automate transactional processes, around 80% of the FTEs replaced by RPA are from offshore locations
- Cost changes due to lower real estate requirements and increased telecom costs have been excluded from the analysis

3. Cost of implementing RPA

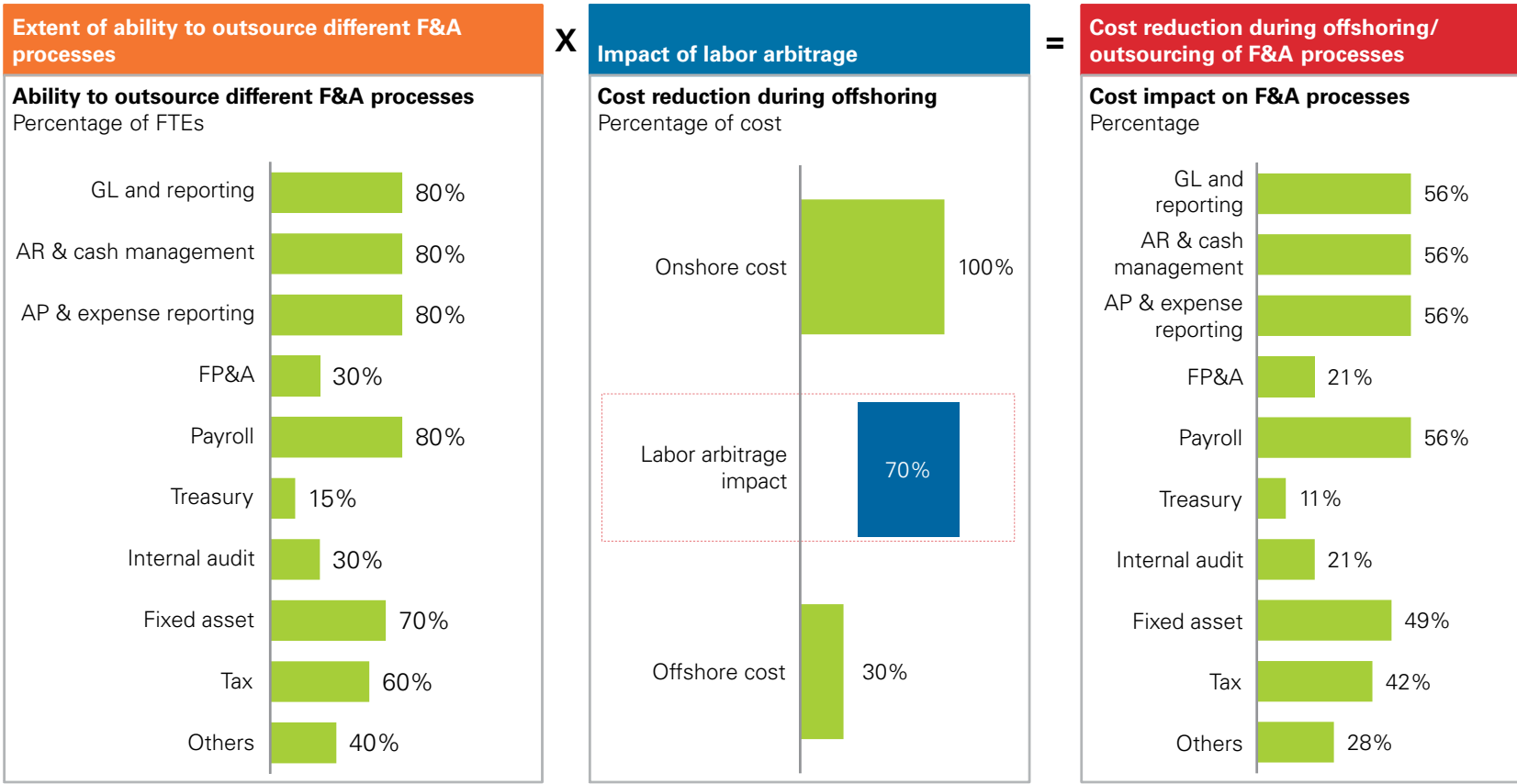
- One-time cost items, including consulting, implementation, configuring, and training fees, are estimated at US\$45,000
- The RPA license is US\$4,000 per annum and operational cost (of the person managing configuration and control) of RPA is US\$1,000 per annum
- Server hosting fee of US\$5,000 per annum has been included
- One-time RPA deployment cost is amortized over the period of three years and added to the RPA licence and operational cost to arrive at the total running cost of an RPA license

Source: Everest Group

Cost reduction due to offshoring/outsourcing

Offshoring/outsourcing can not only reduce cost (~45-50% impact), but also streamline processes for future RPA implementation

1



Overall cost reduction achieved by offshoring/outsourcing F&A processes in this scenario

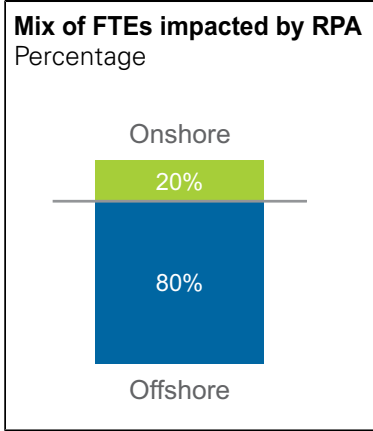
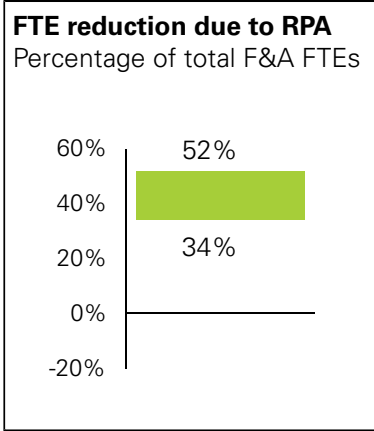
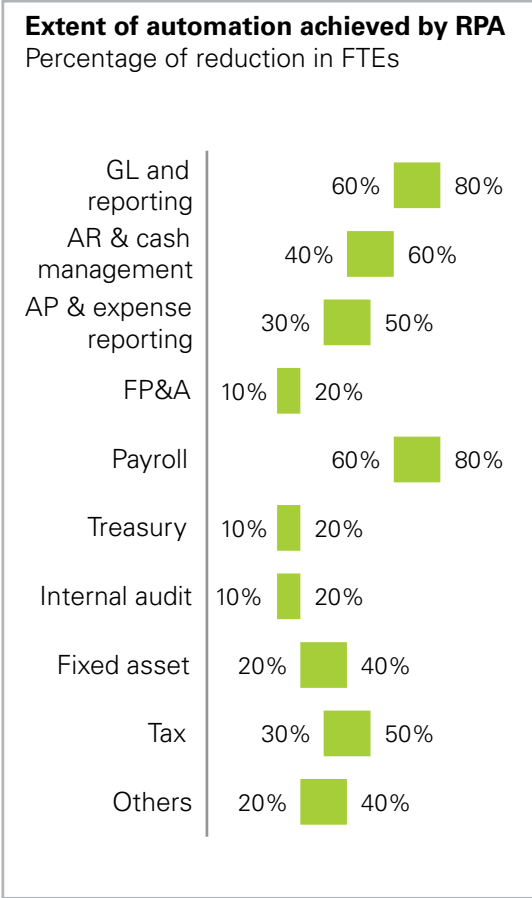
47% (45-50%)

Source: Everest Group

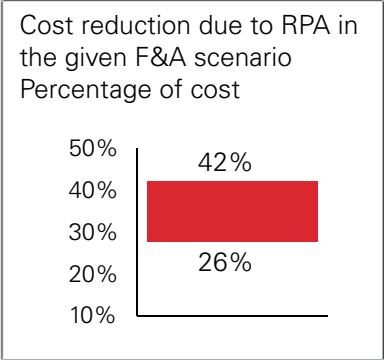
FTE cost reduction due to RPA

Application of RPA can generate an overall impact of ~20-35% on the cost of F&A, depending on the extent of deployment

2



Reduction in FTEs due to RPA varies by the nature of work. Since RPA is focused on transactional work, the majority of FTEs replaced by RPA typically reside in offshore locations



Highlights the impact generated by RPA in already offshored F&A operations

Source: Everest Group

Cost of implementing RPA technology

Total implementation cost of RPA is about one-third of an offshore FTE, and is an amalgamation of one-time and recurring costs

3

Number of RPA licenses required
Total number of FTEs to be replaced
FTEs replaced by single RPA license

Running cost of an RPA bot
One-time cost (consulting, implementation, and transition fee) +
Recurring cost (includes license, server hosting, and operating costs)

255-378 FTEs replaced by RPA implementation¹

Around 3 FTEs are replaced by one RPA license

=

Number of RPA licenses required 85-130

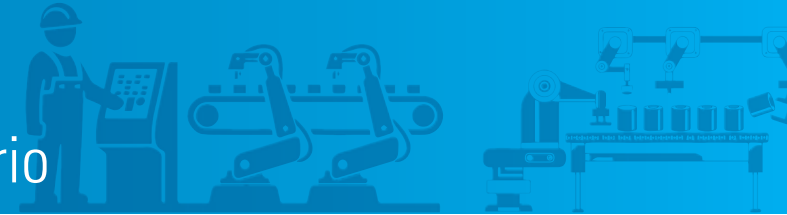
Cost items	Value
One-time cost ²	US\$ 45,000
Amortization period	3 years
Recurring costs (per bot per annum)	
RPA license ³	US\$4,000
Hosting cost	US\$5,000
Monitoring cost	US\$1,000

RPA cost p.a.
US\$865,000 to US\$1,315,000

- 1 Calculated by applying the FTE reduction of 24-41% on an overall base of 750 FTEs (typical number of F&A FTEs in a US\$10 billion organization)
- 2 The actual price may vary from the list price of robots, depending upon a number of factors (such as size of deployment and number of processes covered under deployment, amongst others)
- 3 One-time costs can vary depending on a number of factors (such as size of deployment, number of processes covered under deployment, amongst others)

Source: Everest Group

Impact of RPA on the insurance BPO | Scenario



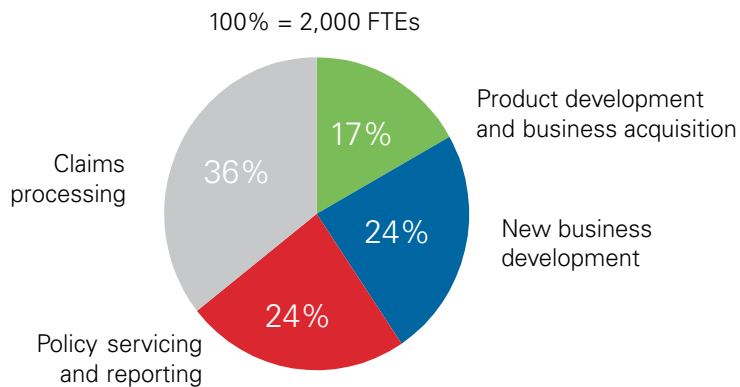
Key assumptions undertaken to analyze the impact of RPA

Overall organization size and insurance function characteristics

- The scenario is based on an imaginary insurance organization with the annual revenue of US\$10 billion
- FTEs working within the horizontal functions (F&A and HR) in the insurance organization are not included in this analysis
- Typical size of the industry-specific function for such an organization is estimated at 2,000 FTEs
- All industry-specific insurance FTEs have been appropriately distributed among different processes (see chart)

Split of industry-specific FTEs by processes in a typical insurance organization

Percentage of FTEs



Source: Everest Group

1. Cost reduction due to offshoring/outsourcing

- All industry-specific insurance processes have been outsourced/offshored to the maximum extent possible
- Cost reduction due to offshoring/outsourcing only includes the labor arbitrage component
- Majority of the transactional work is delivered from offshore locations

2. Cost reduction due to RPA implementation

- A typical RPA license replaces 3 FTEs
- Given that RPA is utilized to automate transactional processes, around 80% of the FTEs replaced by RPA are from offshore locations
- Cost changes due to lower real estate requirements and increased telecom

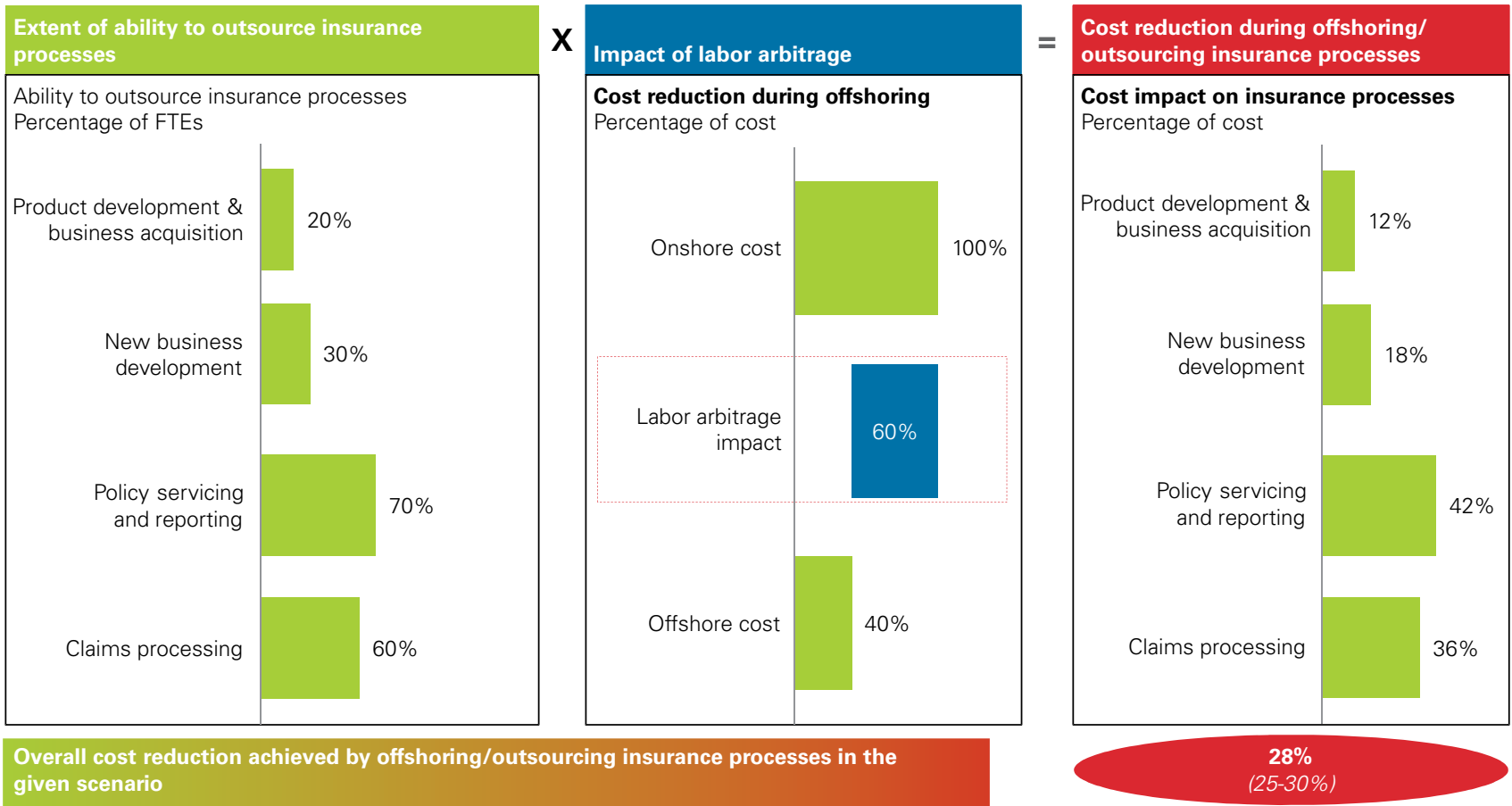
3. Cost of implementing RPA

- One-time cost items, including consulting, implementation, configuring, and training fees, are estimated at US\$45,000
- The RPA license is US\$4,000 per annum and operational cost (of the person managing configuration and control) of RPA is US\$1,000 per annum
- Server hosting fee of US\$5,000 per annum has been included
- One-time RPA deployment cost is amortized over the period of three years and added to the RPA licence and operational cost to arrive at the total running cost of an RPA license

Impact of RPA in insurance BPO | Cost reduction due to offshoring

Offshoring/outsourcing can not only reduce cost by 25-30%, but also streamline processes for future RPA implementation

1

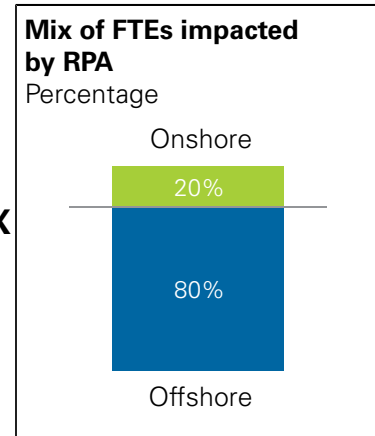
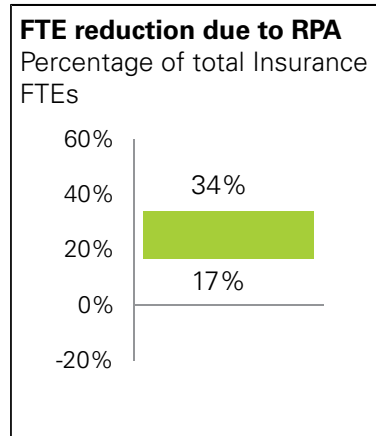
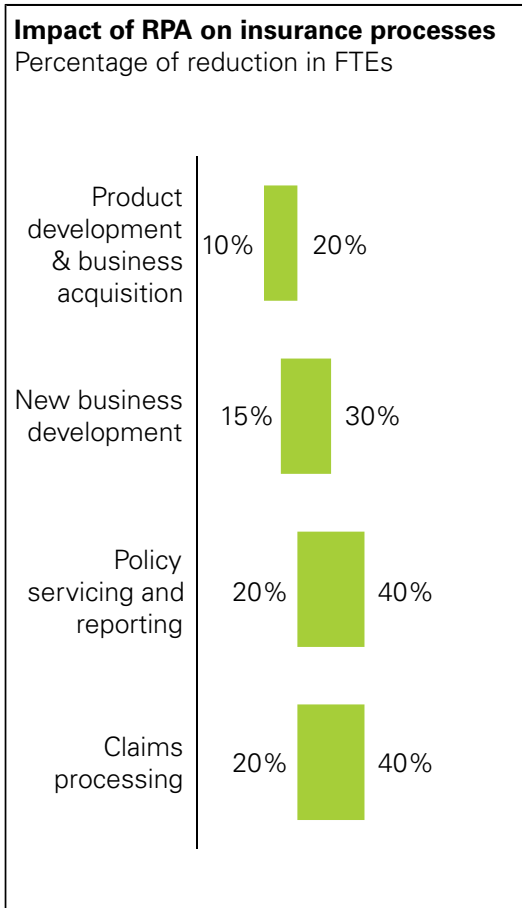


Source: Everest Group

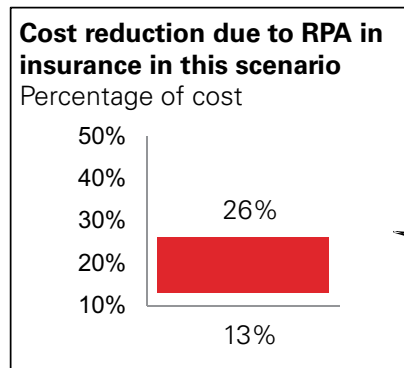
Impact of RPA in insurance BPO | FTE cost reduction

While the extent of RPA implementation differs by process, application of RPA can generate an overall impact of ~9-18% on offshore operational costs

2



Reduction in FTEs due to RPA varies by the nature of work. Since RPA is focused on transactional work, the majority of FTEs replaced by RPA typically reside in offshore locations



Highlights the impact generated by RPA in already offshored insurance operations

Source: Everest Group

Impact of RPA in insurance BPO | Implementing and running cost

Total implementation cost of RPA is about one-third of an offshore FTE, and is an amalgamation of one-time and recurring costs

3

Number of RPA licenses required

Total number of FTEs to be replaced

FTEs replaced by single RPA license

343-686 FTEs replaced by RPA implementation¹

Around 3 FTEs are replaced by one RPA license

=

Number of RPA licenses required
115-229

Running cost of an RPA bot

One-time cost (consulting, implementation, and transition fee)

+

Recurring cost (includes license, server hosting, and operating costs)

Cost items	Value
One-time cost ²	US\$ 45,000
Amortization period	3 years
Recurring costs (per bot per annum)	
RPA license ³	US\$4,000
Hosting cost	US\$5,000
Monitoring cost	US\$1,000

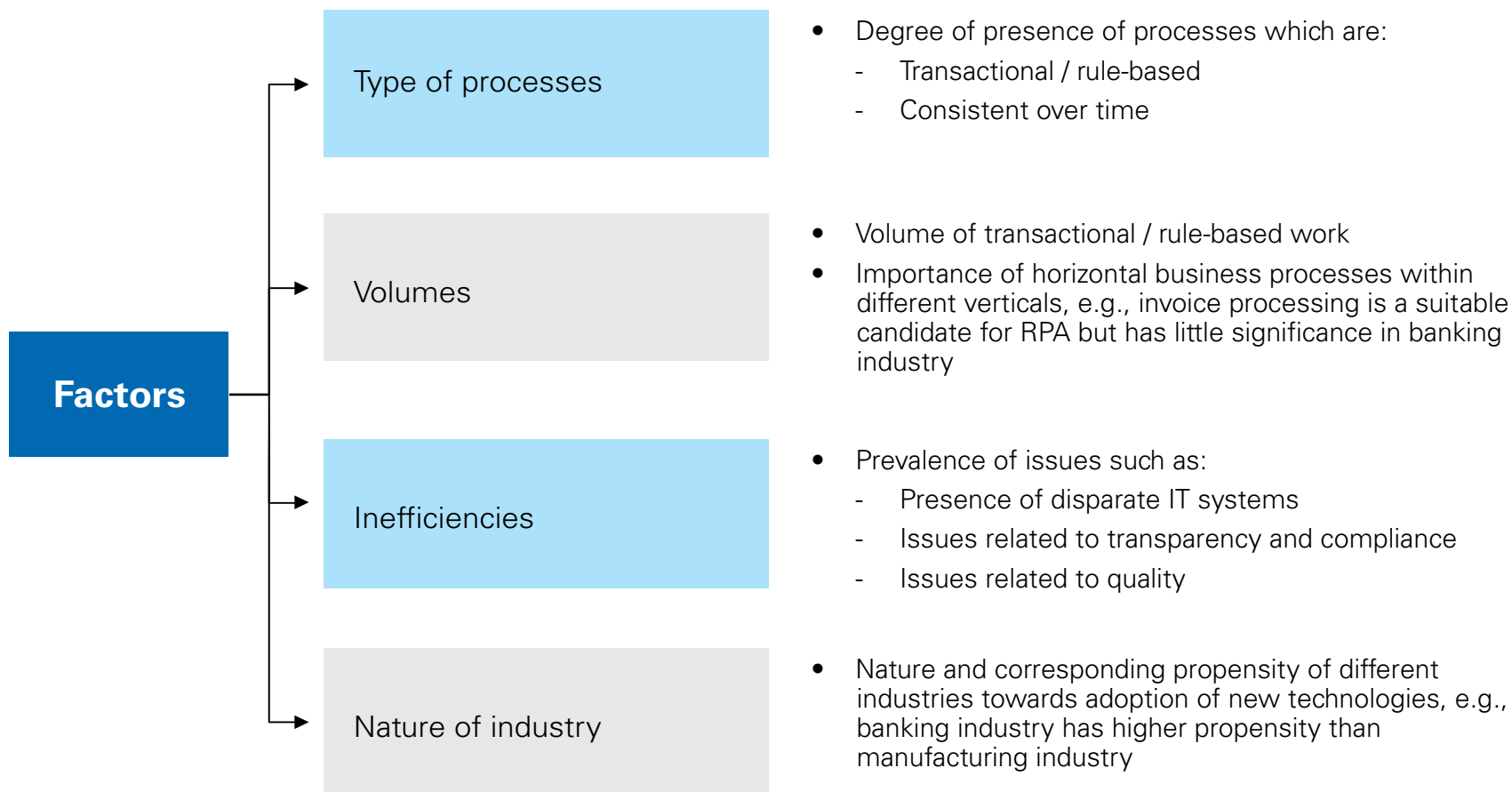
RPA cost p.a.

US\$1,165,000 to US\$2,305,000

- 1 Calculated by applying the FTE reduction of 24-41% on an overall base of 750 FTEs (typical number of F&A FTEs in a US\$10 billion organization)
- 2 The actual price may vary from the list price of robots, depending upon a number of factors (such as size of deployment and number of processes covered under deployment, amongst others)
- 3 One-time costs can vary depending on a number of factors (such as size of deployment, number of processes covered under deployment, amongst others)

Source: Everest Group

Factors considered for the evaluation of adoption potential across different industries and business functions



Source: Everest Group

Glossary of key terms used in this report (page 1 of 2)

Term	Definition
Augmentation solutions	<p>Augmentation solutions are technology solutions that bolt on to other systems (usually standalone / platform-based solutions). They provide additional functionality and efficiency for supporting a business process</p> <p>Key characteristics:</p> <ul style="list-style-type: none"> i. They handle ancillary tasks pertaining to an end-to-end process such as improving efficiency, compliance, speed, and effectiveness ii. These solutions do not hold data, which means they do not have any system of record. As a result, they need other systems for supplying data/information needed for executing a task
BPM tools	These are process optimization solutions with capabilities of process design, execution (through workflows and orchestration of different BPS technology systems), and monitoring (through analytics)
BPO	Business Process Outsourcing refers to the purchase of one or more processes or functions from a company in the business of providing such services at large or as a third-party provider
Buyer	The company/entity that purchases outsourcing services from a service provider of such services
EAI tool	Enterprise Application Integration (EAI) tool is a software that integrates a number of disparate enterprise systems, thereby making data extraction, manipulation, and loading more convenient
FTEs	Full-Time Employees on the rolls of the company
FTE-based pricing	Input-based pricing structure; priced per resource type with significant price differences between onshore and offshore (e.g., per onshore clerk and per offshore clerk)
Horizontal business processes	Horizontal business processes refer to those processes which are common across the various departments in an organization, and are often are not directly related to the key revenue-earning business. Examples include procurement, finance & accounting, and human resource management

Source: Everest Group

Glossary of key terms used in this report (page 2 of 2)

Term	Definition
Offshoring	Transferring activities or ownership of a complete business process to a different country from the country (or countries) where the company receiving the services is located. This is primarily done for the purpose of gaining access to a lower-cost labor market but may also be done to gain access to additional skilled labor, establish a business presence in a foreign country, etc. Companies may utilize offshoring either through an outsourcing arrangement with a third-party or by establishing their own Global In-house Centers (GIC) in offshore location, among other business structures
Transaction-based pricing	Output-based pricing structure; priced per unit transaction with significant price differences between onshore and offshore
Vertical-specific business processes	Vertical-specific business processes refer to those processes which are specific to a department within an organization, and are often directly related to the key revenue-earning business. Examples include lending process in case of the banking industry and claims processing in case of the insurance industry

Source: Everest Group



About Everest Group

Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. We are trusted advisors to senior executives of leading enterprises, providers, and investors. Our firm helps clients improve operational and financial performance through a hands-on process that supports them in making well-informed decisions that deliver high-impact results and achieve sustained value. Our insight and guidance empowers clients to improve organizational efficiency, effectiveness, agility, and responsiveness. What sets Everest Group apart is the integration of deep sourcing knowledge, problem-solving skills and original research. Details and in-depth content are available at www.everestgrp.com and research.everestgrp.com.

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