

Robotic Process Automation

Are you ready for the new world?
FEI Webinar

July 25, 2017

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Agenda

1. An overview of RPA

- ▶ Introduction to a “Bot”
- ▶ What is Robotic Process Automation (“RPA”)?
- ▶ What are the benefits? Myths?

2. RPA “Value Creation”

- ▶ Most suitable processes
- ▶ Case studies

3. EY’s internal experience & successes

4. Getting started

5. Questions

How does RPA and
**Intelligent
Automation reinvent
productivity?**



...What if
it meant **25% to
40%+**
**sustainable cost
savings and a
win-win-win?**

Panelists



- ▶ **Vasu Yedavalli** is a Partner / Principal in EY's Advisory practice with 25+ years in CFO focused consulting and business solutions. Vasu has had an accomplishment-laden career of providing management and direction to several Fortune 50 and Fortune 500 companies in global finance strategy, performance improvement and technology consulting engagements. Vasu has a proven track record in developing and managing market facing innovative solutions, and driving cross-service lines integration and talent development. He is recognized for integrity, solid work ethic, and organizational skills in effectively managing priorities and multiple tasks within competitive and fast-paced settings and developing high performance teams.
- ▶ He has supported several RPA pursuits and some implementations. He is currently a leader in the Robotics Process Automation solution offering (RPA) for EY's Diversified Industrial Products sector and the North East region.

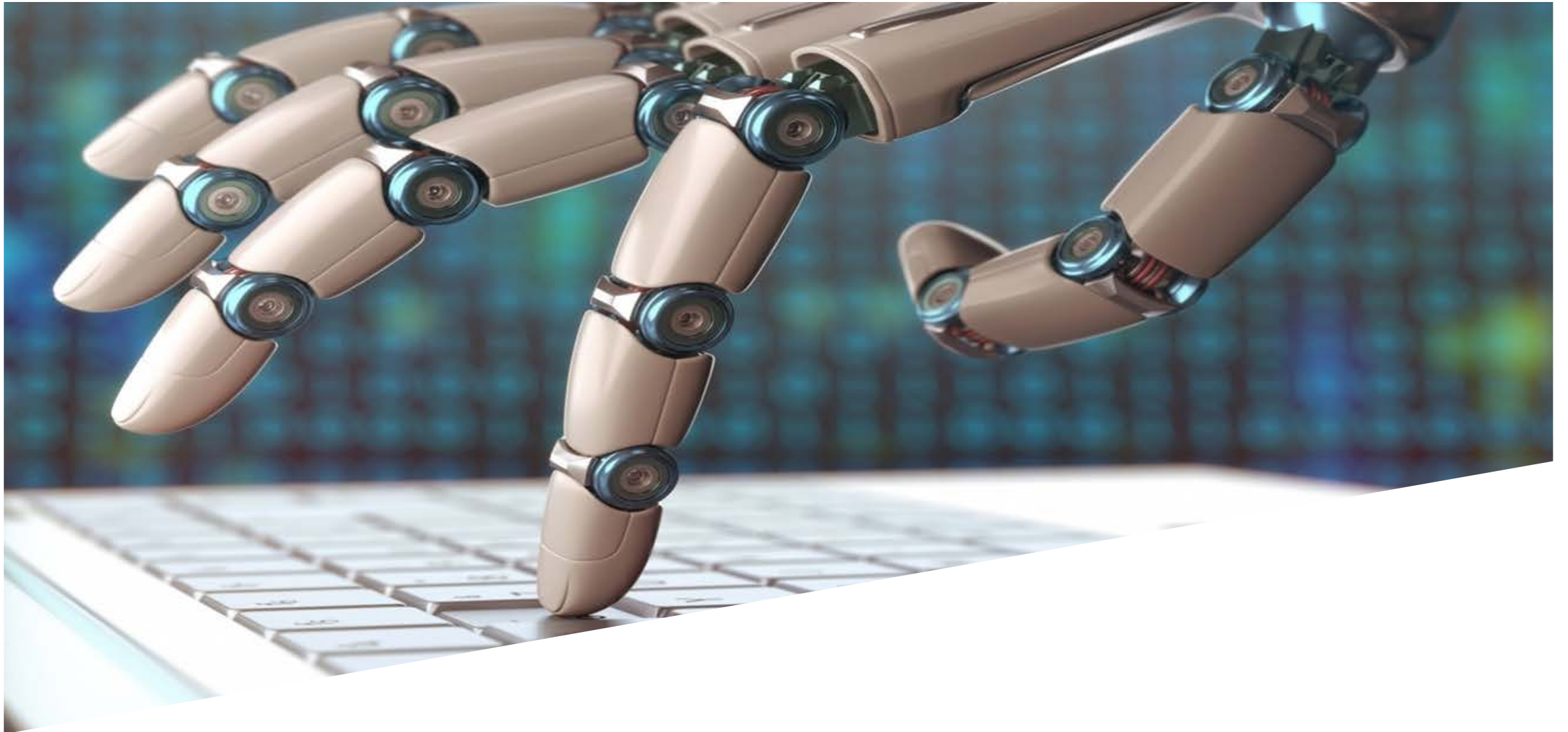


- ▶ **Sharda Cherwoo** is a Partner in EY's National Tax practice and has held a variety of leadership roles focusing on innovative global entrepreneurial initiatives, strategic and operational, business unit leadership and client serving roles. Sharda serves as the firm's Americas Tax leader for Intelligent Automation and Robotic Process Automation and has been at the firm for over 35 years.
- ▶ In addition to her client serving role as an Tax Account Leader on global accounts, Sharda has been hands-on and focused on leading and implementing the strategy through enabling innovative technologies such as robotic process automation. EY Robotic Process Automation was the Gold Stevie® Award Winner in the 2017 American Business Awards in the category of Innovation of the Year.
- ▶ Sharda has led many robotic process automation tax innovation workshops with clients to identify opportunities for automation, share leading practices and implementation insights based on her deep experience in RPA implementations from inception to production and post-production considerations.
- ▶ Sharda has also served as the Americas Director of Tax Operations and Compliance for EY with responsibility for the strategy, growth, and leading the operations across the U.S., Canada, and Latin Americas.



- ▶ **Paul Bramwell** is a Principal in EY's Global Treasury Services team based in NY which serves the full spectrum of treasury activities. Paul spent 15 years in corporate treasury as a practitioner, mostly in the UK and joined a treasury technology company in 2000. Paul moved to the US in 2003 with SunGard where he worked with a significant number of fortune 500 clients in providing technology solutions to meet their requirements.
- ▶ Over the last 6 years Paul was responsible for the P&L, strategy and future product direction of the portfolio of products that SunGard had acquired through acquisition with a particular focus on ensuring the systems could meet regulatory and functional requirements for their clients.
- ▶ Paul joined EY 18 months ago where he is responsible for the Eastern Region of the Global Treasury Services team and nationally for treasury technology and robotics.

Introduction to robotics





Polling Question

How would you rate you and your company's understanding of robotics process automation (RPA)?

- A. This is the first time I have thought about it.
- B. We are at the early stages of exploring what it means.
- C. We understand all the hype and are working out what it means for us.
- D. We have a strategy in place and are starting to execute.
- E. We are mature users of a range of smart automation tools.
- F. Not applicable (EY professional, faculty, other)



Introduction to a “Bot”

▶ Click to start [Video](#)



Disrupt or be disrupted?

Headlines capturing attention of executives everywhere

30%–40%

of existing business process services are likely to be impacted by RPA

Gartner



Cost reduction of **35%–65%** for onshore operations and 10%–30% for offshore operations

Institute for Robotic Process Automation

RPA is estimated to lead to **30%–35%** reduction in entry-level roles and increase mid-level roles

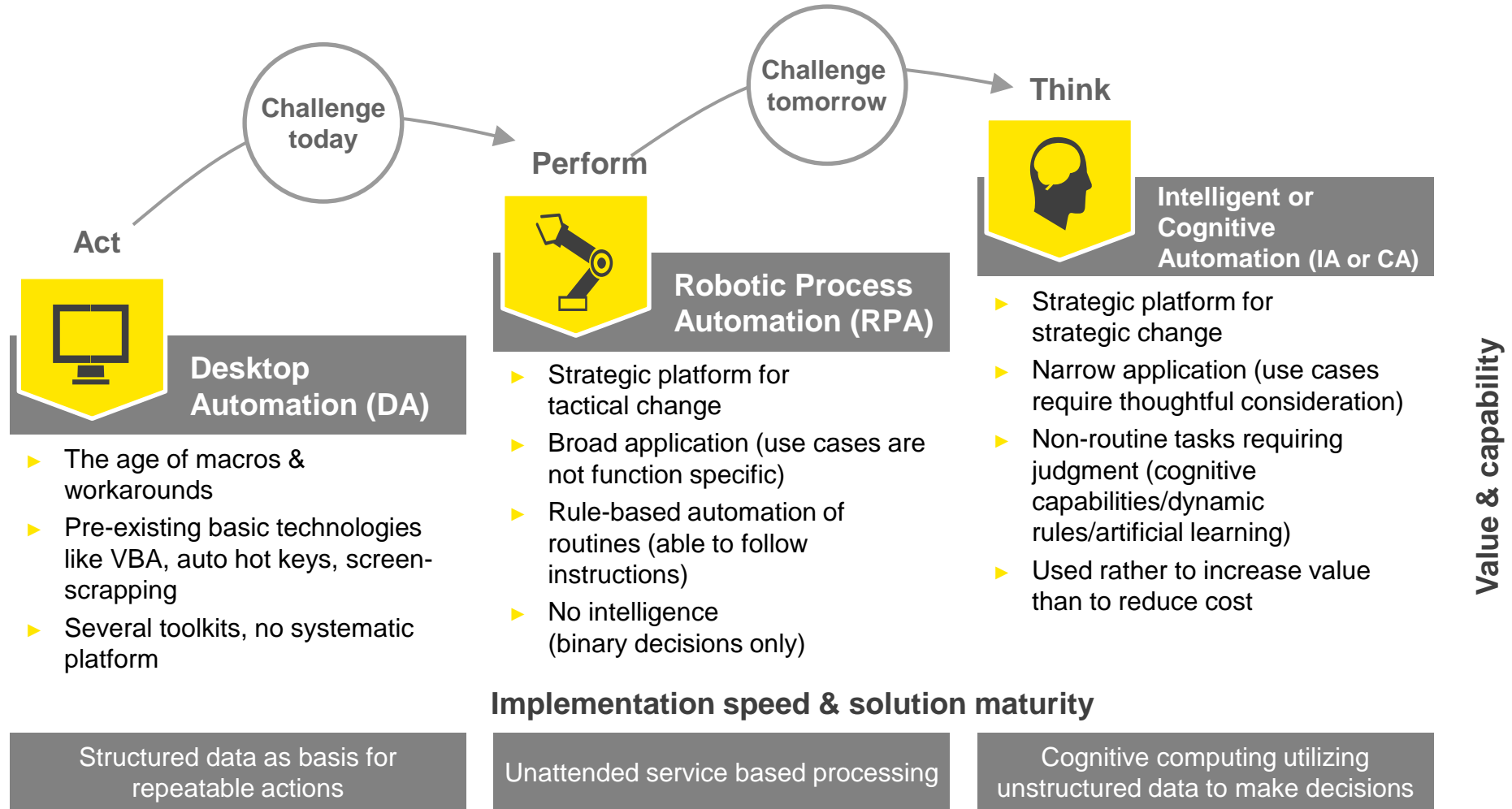
Everest Group



Estimated that **85%** of a typical firm's **900+** processes can be automated; **110m** to **140m** FTE capacity could be released by **2025**

McKinsey & Company

Robotics is a spectrum of automation



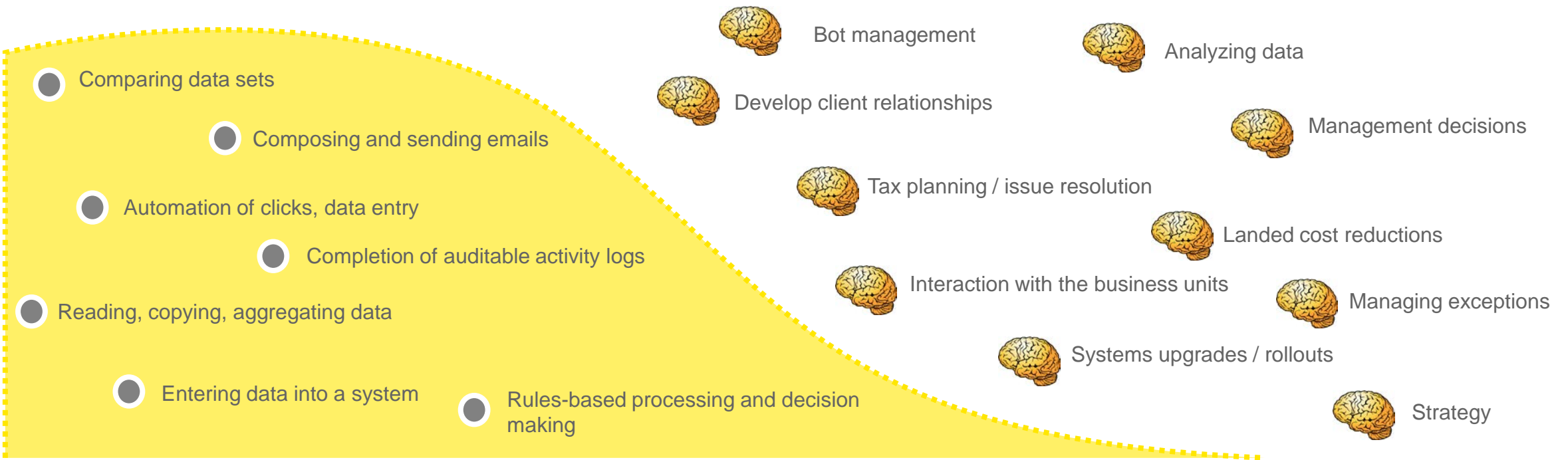
Taking the robot out of the human

Robotic process automation (RPA)

A software solution that runs unattended, working like a virtual employee with legacy applications performing repetitive tasks reliably at the User Interface level

Current workforce

Taking the robot out of the human allows your employees to focus on driving growth in the top line, reducing costs and focusing on value added activities



Business-led transformation under IT governance

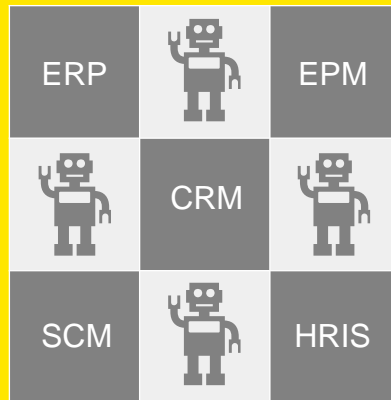
Defining your **purpose** will drive how RPA is implemented

Low-risk, low-cost extension of existing technology

RPA is overlaid on existing systems and integrated with existing data minimizing disruption to IT strategy and architecture.

While most RPA applications will be part of the long-term architecture, some applications provide a cost-effective, medium-term solution until core systems are expanded.

RPA often “fills the gaps” between existing systems



Cost savings or avoidance

Ranging from **20–60%** of baseline FTE cost

Right shoring

Geographical independence reducing need to offshore jobs while still delivering cost savings



Productivity

Freed up human resources for higher value-added tasks.

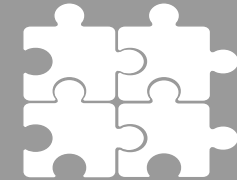
Accuracy

Double-digit reductions in error rates



Scalability

Instant ramp up and down to match demand peaks and troughs



Consistency

Identical processes and tasks, eliminating output variations



Reliability

No sick days, services provided 365 days a year

Audit trail

Fully maintained logs essential for compliance



Opportunity focused

Can focus RPA on only those areas where significant opportunity exists; does not require enterprise adoption



Retention






Shifts human effort toward more stimulating tasks



ROI

Typical RPA projects with multiple functional “pilots” but generally completed in 9 to 12 months with a return on investment (ROI) < 1 year

Applying RPA to free up valuable time

Types of benefits	Examples
 <p data-bbox="285 422 664 458">Save in human effort</p>	<p data-bbox="819 401 2372 479">Reduce people expense by automating frequent manual repetitive tasks, improving exception handling and moving work to best location</p>
 <p data-bbox="285 562 664 679">Increase value add of talent and lower attrition</p>	<p data-bbox="819 579 2385 658">Improve knowledge worker value add by increasing focus on highest return activities (i.e., time dividend) and improve their satisfaction/retention by eliminating dull routines</p>
 <p data-bbox="285 765 664 843">Accelerate value from other initiatives</p>	<p data-bbox="819 765 2424 843">Enable quick wins and rapid value realization to expand margins or generate funding for existing or new initiatives (e.g., lean, BPR, ERP implementations, process improvement)</p>
 <p data-bbox="285 933 664 1051">Reduce costly errors with quality and controls</p>	<p data-bbox="819 951 2333 1029">Improve auditability (every step could be logged), consistency, and control over error-prone manual activities that elevate risk, non-compliance, financial or reputational harm</p>
 <p data-bbox="285 1136 664 1215">Do more faster and shorten critical path</p>	<p data-bbox="819 1136 2282 1215">Reduce end-to-end time to handle peak periods, meet deadlines, and smooth post-M&A integration by virtually connecting disparate systems and data sources</p>

RPA in action

Data movement



1:42 video demo

Sourcing, lightly transforming and loading data for reporting, analytics, data profiling, and system testing and migration

Digital enablement



2:00 video demo

Adding digital/mobile to application(s), such as customer preference/profile, sales or service transactions

Virtual handling



2:19 video demo

Rapidly performing repetitive tasks otherwise done by humans to reduce cost, accelerate timing, improve reliability and reduce risk

What are MYTHS and REALITIES of RPA?

MYTH: Robotics will fix outdated or inefficient processes

MYTH: All processes can be improved with RPA

MYTH: Robots will replace the workforce

REALITY: Process costs are reduced by 25%-40%

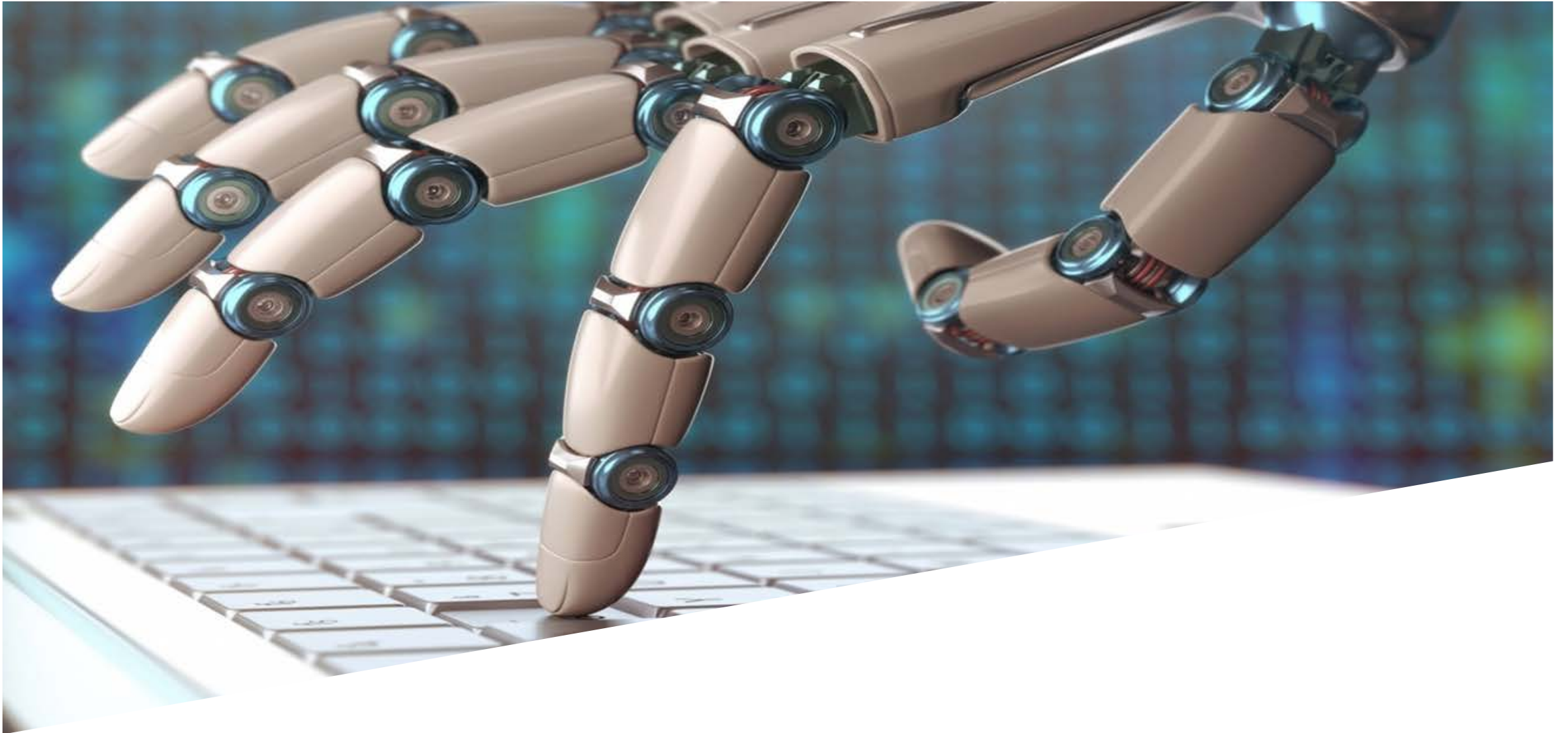
REALITY: Significant increase in processing speed

REALITY: RPA is a technology overlay, that ties together legacy fragmented systems through automation

REALITY: Human workforce increases focus on results, analytics and relationships



Where RPA initially drives value

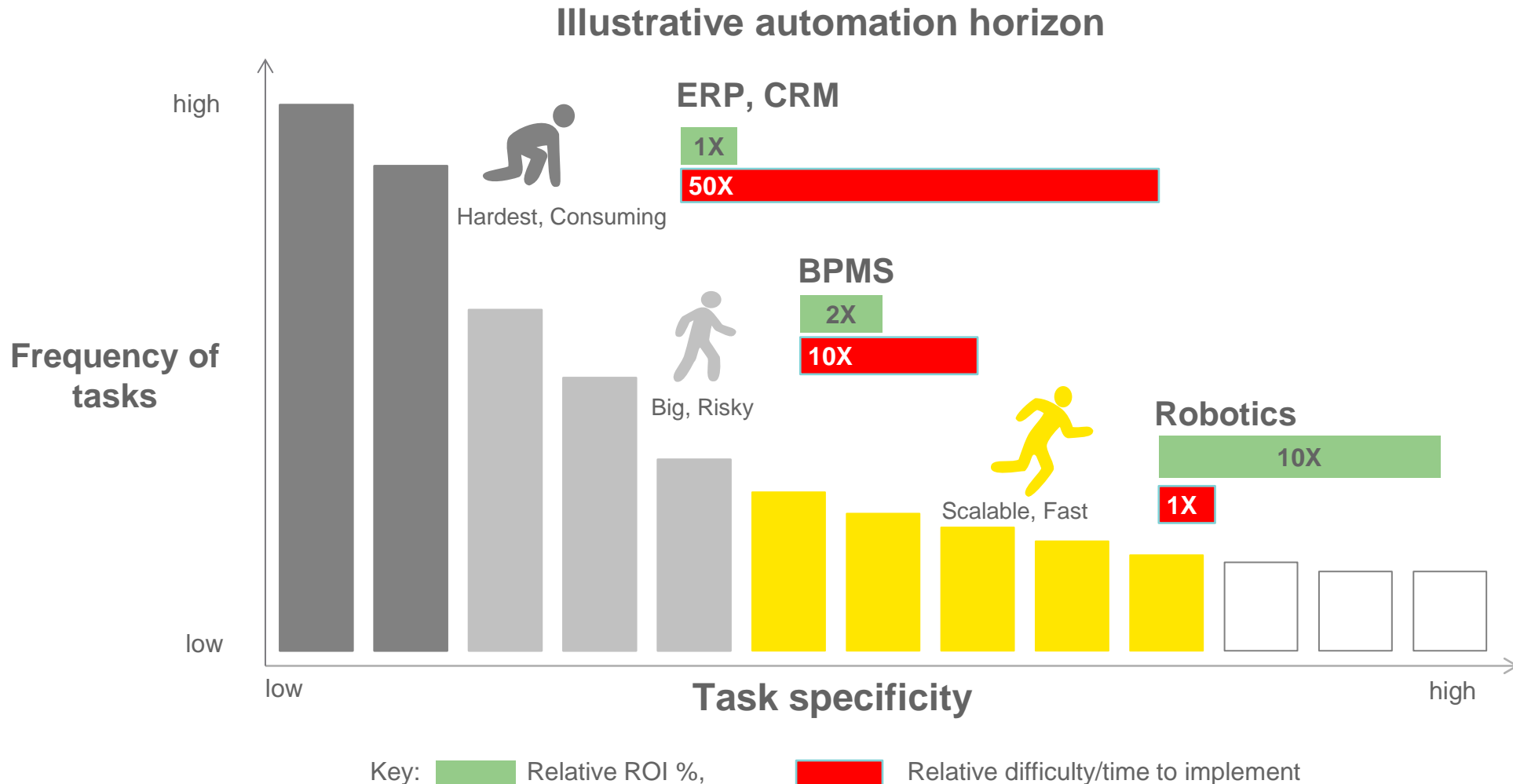


Polling Question

Where do you think the biggest potential for robotics lies in your organization? (select your top three)

- A. Sales and marketing services
- B. Supply chain and logistics
- C. Procurement
- D. Back-office and administrative services
- E. IT help desk and services
- F. Tax compliance and operations

The value proposition: ~10X ROI coupled with ~50X less difficulty to implement



Identifying the most suitable scope of processes for implementation is key to unlocking the full value of RPA

Process characteristics to consider for RPA

- ▶ High-volume repetitive transactions
- ▶ High levels of manual data capture and entry
- ▶ Interaction with multiple applications or systems
- ▶ Multiple tasks to perform a process
- ▶ Definable business rules and exceptions

- ▶ Data entry, validation and manipulation
- ▶ Data transfer between applications
- ▶ Automated formatting
- ▶ Copy-and-paste operations
- ▶ Login and logout of applications and emailing

Activities typically performed by RPA

The application scope is broad — penetrating, for example, finance and accounting, human resources, IT and supply chain

F&A

- ▶ Sales order
- ▶ Order to cash
- ▶ Reconciliations
- ▶ Incentive claim
- ▶ Record to report
- ▶ Vendor setup
- ▶ Trend tracking

60%
reduction in cost
to process
invoice

HR

- ▶ Payroll
- ▶ Benefits administration
- ▶ Pay slip management
- ▶ Time and attendance management
- ▶ Recruiting process
- ▶ Education and training
- ▶ Compliance reporting

80%
Reduction in payroll
processing cost

Supply chain/S2P

- ▶ Master data management
- ▶ Source to Pay
- ▶ Work order management.
- ▶ Demand and supply planning
- ▶ Quote, invoice and contract management
- ▶ Returns processing
- ▶ Freight management

9%–20%
of the cost to
companies arises
from supply chain
problems

IT

- ▶ Installation
- ▶ File transfer protocol download, upload and backup
- ▶ Server application and monitoring
- ▶ Synchronizing, deleting and emptying folders
- ▶ File and email mgmt.

30%
of the time spent
by IT is almost on
low-level tasks

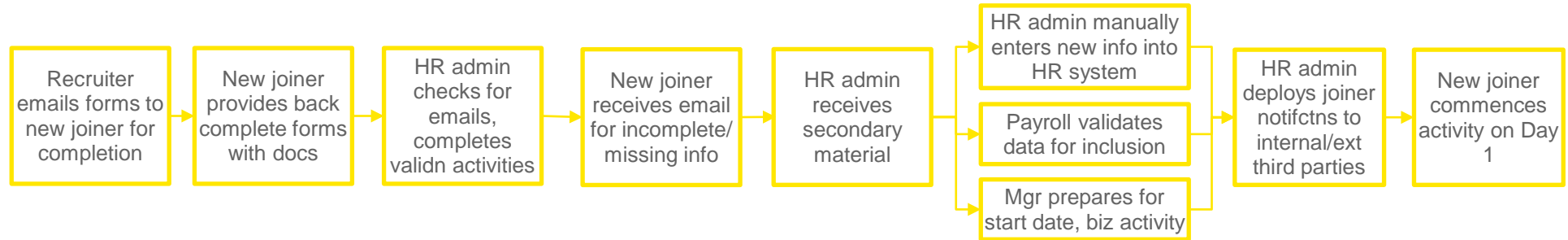
HR case study: the onboarding process

▶ Click to start [Video](#)



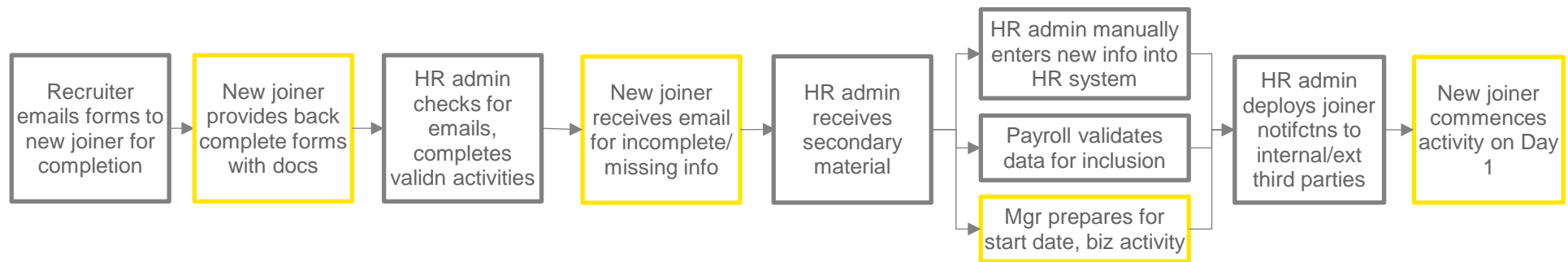
As-is process

Process time: 138 mins



Automated process

Process time: 3 mins



Process overview and RPA benefits

Benefits realized:

- ▶ Reduction in onboarding time — 2.3 hours to 3 mins
- ▶ 100% accuracy on new hire data entry into the system and validation by payroll
- ▶ 50% overall reduction in manual effort, thus encouraging resources to focus value-added time on non-repetitive tasks
- ▶ Key stroke errors reduced that impacts payroll data

Process overview:

- ▶ The client used robotics to reduce time involved on the new hire onboarding process
- ▶ Bot would utilize new joiner form to validate info via online system
- ▶ Bot would update Oracle (PeopleSoft) and send emails to payroll for onboarding new joiner

● Manual process

● Automated in POC

Procurement case study: vendor master data management

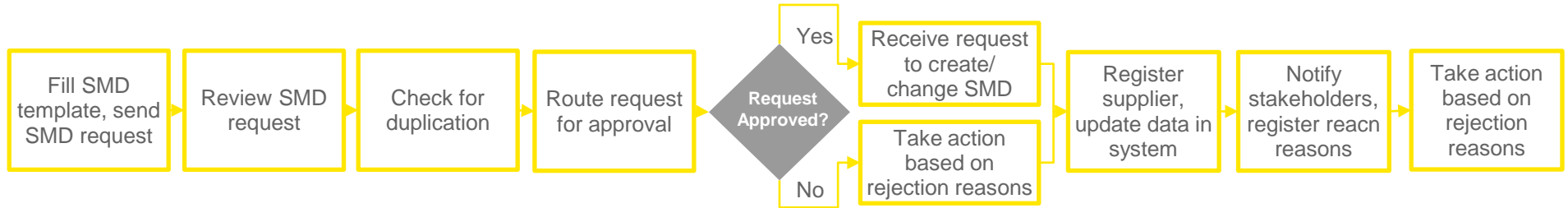
Creation of new vendor

▶ Click to start [Video](#)



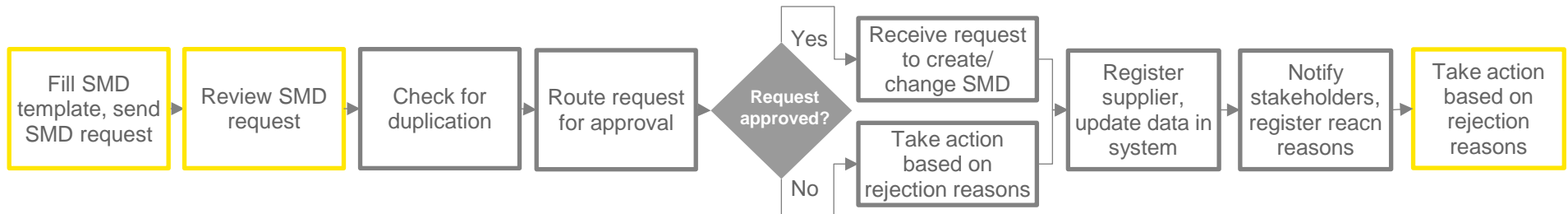
As-is process

Process time: 3 mins



Automated process

Process time: 0.5 mins



Process overview and RPA benefits

Benefits realized:

- ▶ Vendor managed data was automated without approval stages required
- ▶ Routes for approval were passed on to another system as part of POC
- ▶ This part of project also focused on standardization and design of digitally enabling request, notification and approval functionalities

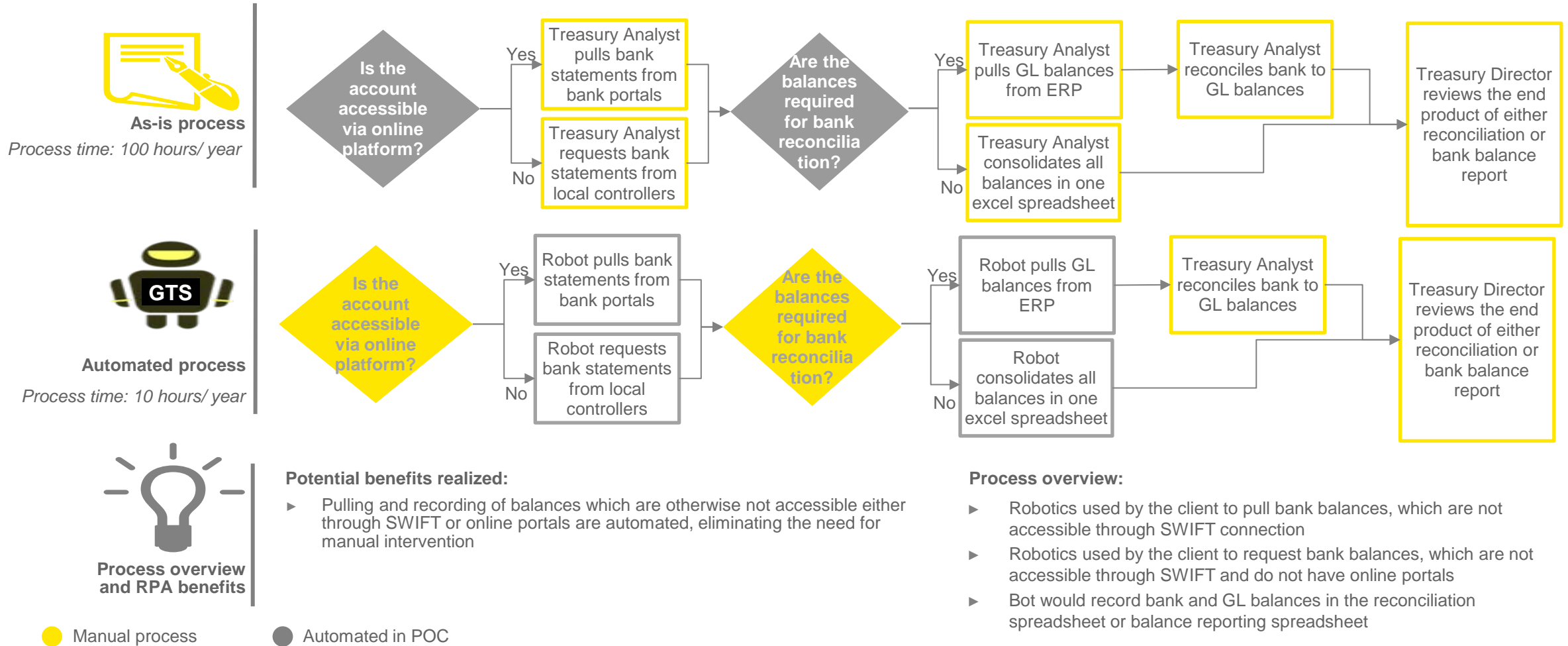
Process overview:

- ▶ Robotics used by the client to create a new vendor in the system
- ▶ Bot would fill the SMD template, check for duplicates and send the request for approval
- ▶ Based on approval decision, bot would register supplier in system and notify stakeholders

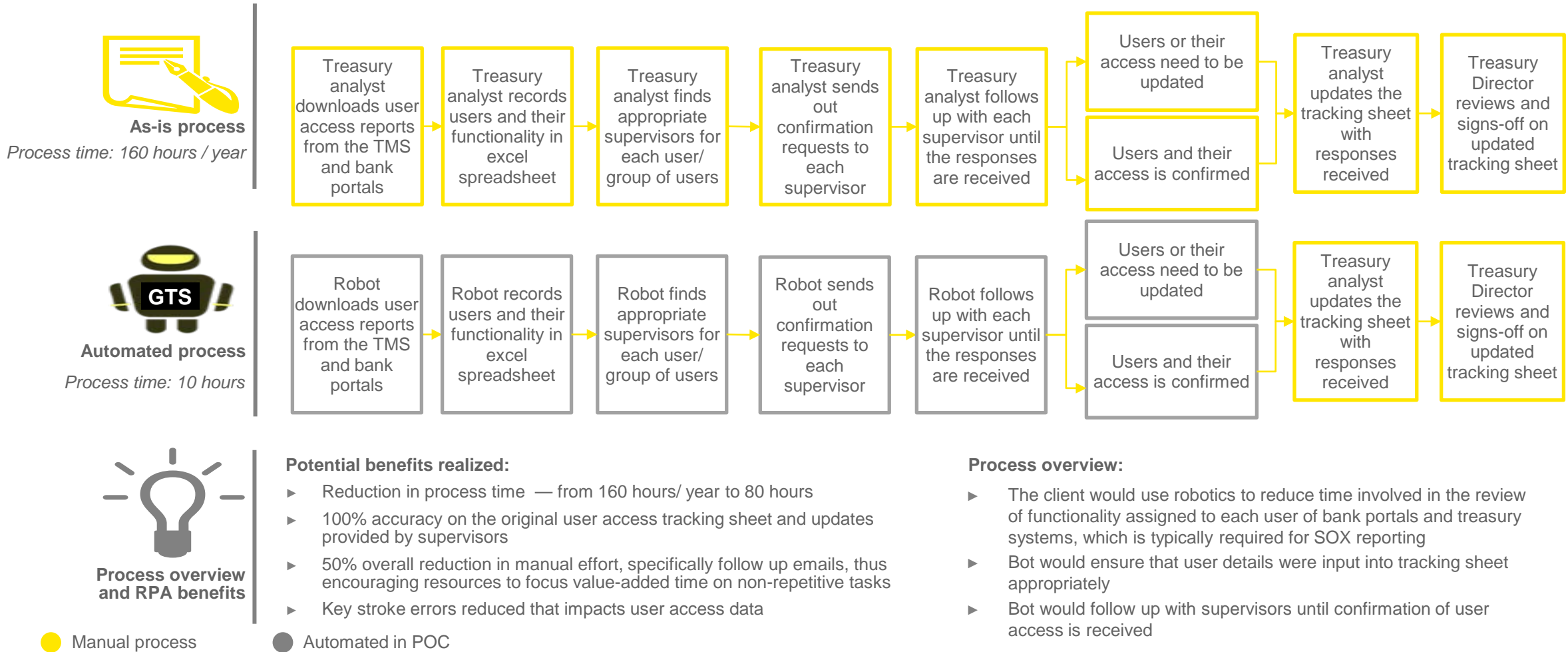
● Manual process

● Automated in POC

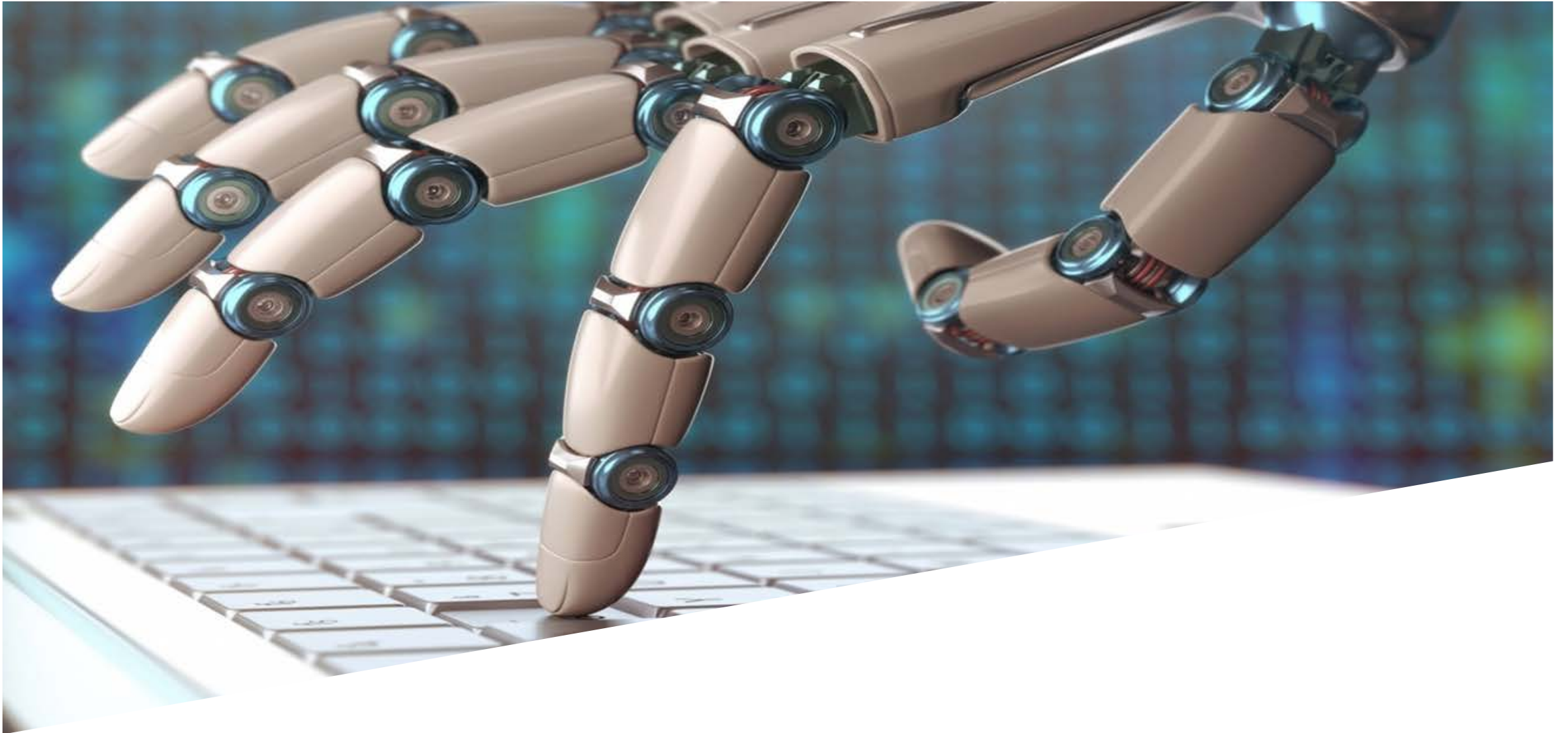
Treasury case study: reporting bank balances, not accessible through SWIFT or SFTP



Treasury Case Study: user access review



EY's internal experience



EY's internal experience and success

1.3m+ hours of annual benefit within 2 years of embarking on the RPA journey

- ▶ Implemented **250+ bots in EY shared services and Tax in 2 years**; plan to be at 500+ bots by the end of 2017
- ▶ Applied RPA to **more than 200 processes** – some very complex; **100,000** tax filings
- ▶ Estimated value – **1,300,000 annual hours of freed-up capacity in Tax (and growing)**; **6 to 9 month payback**
- ▶ RPA has been catalyst for process improvements and standardization – **200+ internal process improvements**
- ▶ Sustained business impact – **driving value** for our people, clients and the firm

Functional areas examples

- ▶ Business Tax Compliance
- ▶ HR recruiting and payroll
- ▶ HR onboarding
- ▶ Reporting
- ▶ Sales and use tax
- ▶ Asset management
- ▶ Property tax
- ▶ Expat tax
- ▶ Global tax reporting
- ▶ FATCA
- ▶ WOTC
- ▶ Form 5500s



Team

Centralized, global enterprise COEs staffed with approximately 100+ people



Foundation technology

Blue Prism and Automation Anywhere



Efficiency

Automating processes replacing 3 to 4 the number of FTEs



Sustainability and growth

2017-2019 expanding to 30-40% of workforce capacity

Polling Question

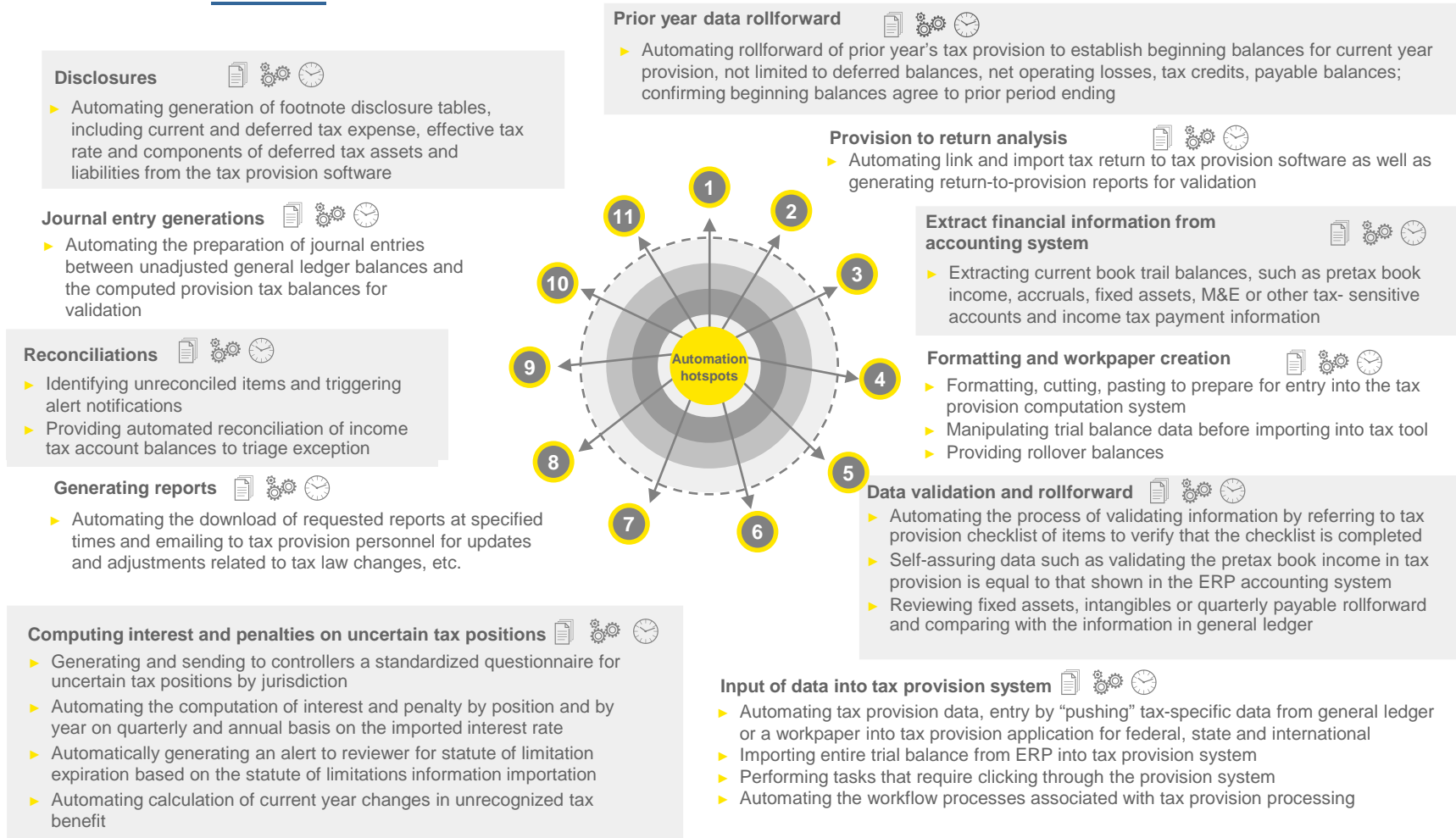
Are you using RPA tools in your tax processes today?

- A. Yes, but only just starting
- B. Yes, extensively
- C. No
- D. Do not know
- E. Not applicable (EY professional, faculty, other)

Automation "hot spots" for tax accounting

Common activities where RPA helps drive value

▶ Click here to start [Video](#)



Case study: Creating a “book” Form 1120 tax return

▶ Click to start [Video](#)

The challenge

- ▶ Changes in financial information create the need to rerun the tax return multiple times
- ▶ Compressed timelines leave little time for in-depth real time review and analysis

Why automation

- ▶ Prepare returns as soon as data is available
- ▶ Increase time allocated to review
- ▶ Accelerate learning of tax talent

What we did

- ▶ Used Automation Anywhere RPA tool to automate the upload of the trial balance, the preparation of the review workbooks, download of invoices and the preparation of the “book” basis Form 1120

Outcome

- ▶ Process is completed with minimal human intervention
- ▶ Accelerated timeline to review
- ▶ Eliminate duplicate steps and “throwaway” output
- ▶ Identify technical issues earlier in the process
- ▶ Engage right resources at the right time

BOT logs into OIT and imports the trial balance



BOT does a system compute and prepares the book return



BOT consolidates and prints the book return



BOT sends an email to the preparer



Tax professional reviews the book return and identifies areas for additional analysis



[Link to video](#)

Robot 

Human 

Case study: Sales and use tax

▶ Click to start [Video](#)

The challenge

- ▶ A significant amount of time is required each month to review tax determinations
- ▶ Leaving little time for review resulting in a ~40% error rate.

Why automation

- ▶ Mitigate compliance risk
- ▶ Reduce costs (i.e. decrease resources for manual processes)
- ▶ Increase time allocated to review
- ▶ Eliminate reverse audit fees
- ▶ Accelerate learning agility of tax talent

What we did

- ▶ Used Automation Anywhere to automate the download of the data, the preparation of the review workbooks, download of invoices and the preparation of exemption certificates

Outcome

- ▶ Significant time savings
- ▶ A greater # of invoices are downloaded - a comprehensive review, improving accuracy
- ▶ Automation of the exemption certificates and emails results in additional refunds from vendors

Setup folders, workflow and download SAP data



Prepare review workbook, including identification of erroneous tax codes

Download invoices



Review invoices and pull additional ad hoc documentation



Populate exemption certificates and prepare vendor emails



Review emails and documentation and send emails



[Link to video](#)

Robot 

Human 

Key insights and lessons learned from our journey

1

Leveraging available tools in addition to RPA consistently across – needs greater focus and dots connected

2

Configured complex processes, developed standardized rulebooks, accelerators - machine learning being implemented next

3

Scaled RPA training strategy to be accelerated – Delivery success depends on building deep RPA implementation skills

4

IT Enablement process needs to mature further – Software application update coordination etc., maintenance processes continues to be fine tuned

5

Driving standardization as we solution for automation is providing added value - Continuous process excellence goals to be set to sustain and grow benefits

6

Targeting RPA at a highly complex process with many variations is a common mistake - That effort could have been better spent automating multiple other processes

A few critical success factors – what to watch out for?

Stakeholder incentive & engagement

Communicate value to all Stakeholders

Effective change management, communication

Engage the business leader to be owners to drive initiative

Process prioritisation

Select the right processes for automation

Develop testing and deployment framework

Secure buy-in from current process owners

Robust and Agile operating model

Build a flexible governance and testing process to support automation processes

Avoid “Analysis Paralysis” for automation of low value tasks

Promote clear view of robot capabilities

Maintain and control knowledge including (methods, best practices and training)

Manage and scale workforce through training and proper resource allocation

Business & IT accountability

Business led development and deployment

Clearly define business and IT roles across RPA

Establish governance protocol

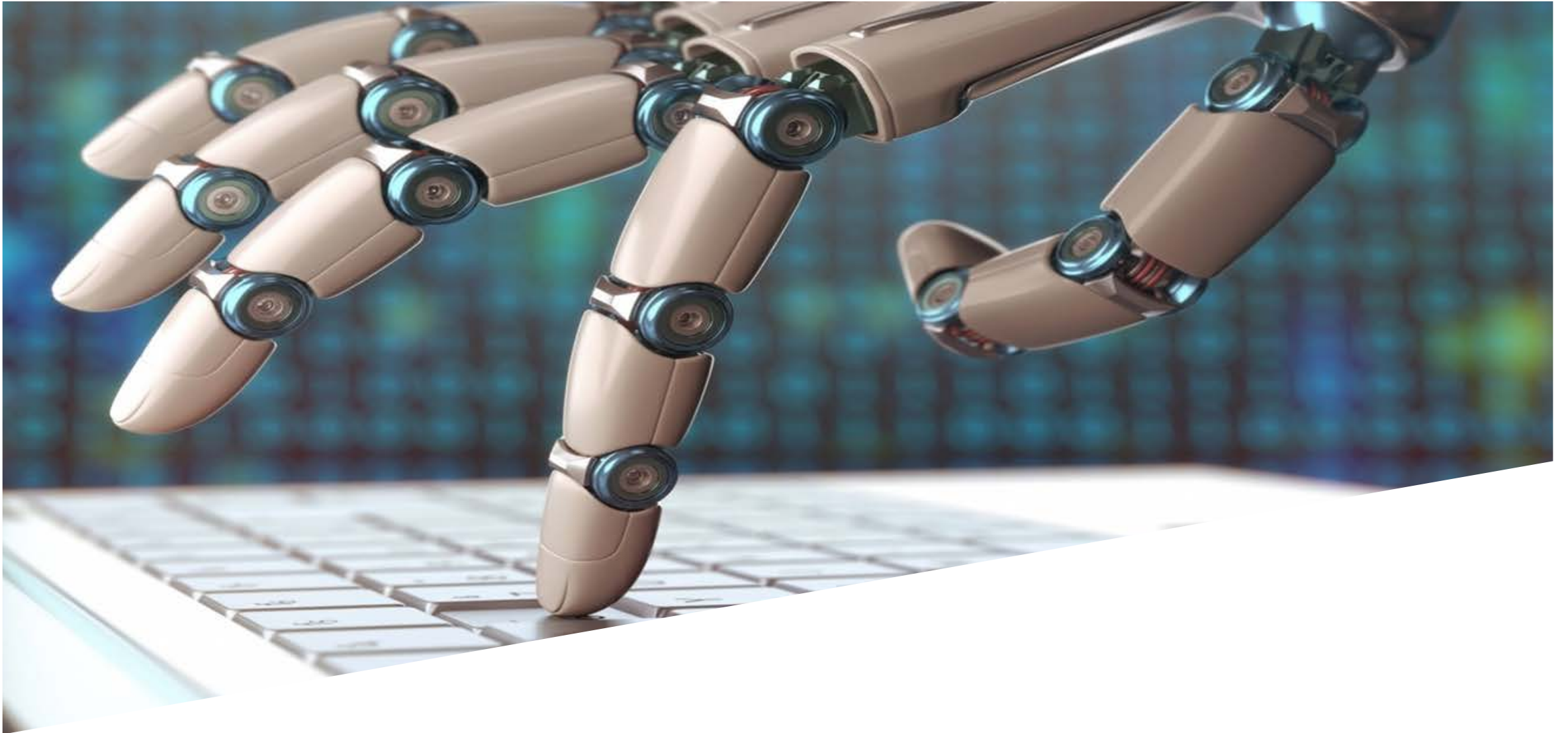
Benefits realization

Benefits tracking for cost-reduction and investment allocation

Trace reinvestment of savings realized from RPA processes

Reassess licenses required for 3rd party technology vendors

Getting started



How to get started

Typical next steps for a feasibility assessment



IDENTIFY AUTOMATION AREAS

Identify an end-to-end practice for a 3 to 5 week RPA feasibility analysis (including Business case)

GATHER INFORMATION

Feasibility Analysis would start with gathering preliminary information about high level processes, resources, pain points

SMP PROCESS MEETINGS

Discussion with the subject matter leaders regarding details of the processes, variations, applications and timing and other dimensions

IDENTIFY AUTOMATABLE PROCESSES

High level solution architecting and assessment of possible automation solutions, timeline; RPA/ consider other tools like ETL

ASSESSMENT REPORT

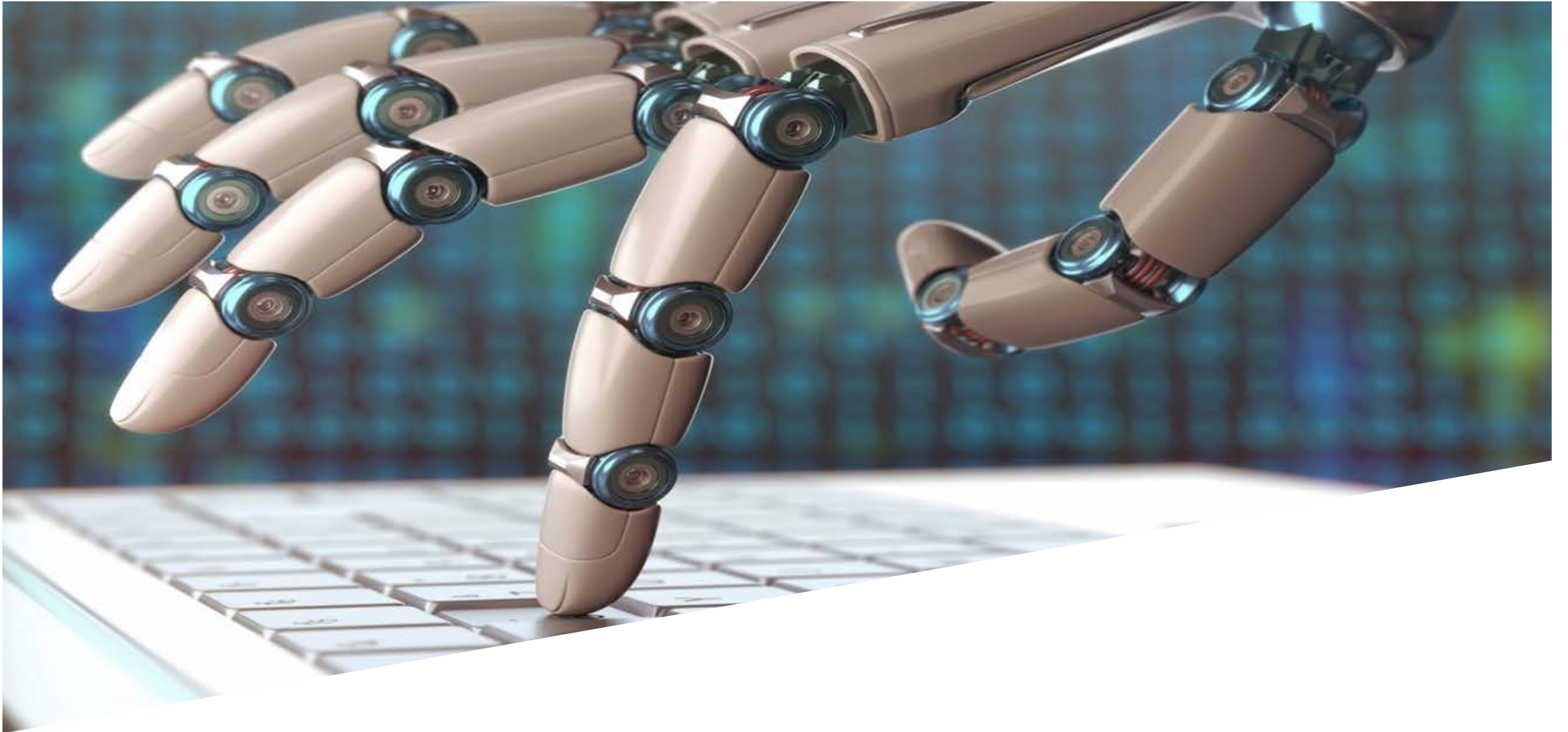
Compile business case with net savings and Sprint Plan and timing including identifying other process improvements identified during the review

Polling Question

**Which of the following areas would you be most interested in for future webcasts and/or distribution of materials?
(select all that apply)**

- A. Further insight into the RPA/smart automation landscape
- B. More case studies and use cases
- C. Insight into how to deliver smart automation
- D. Deeper insight into a specific functional area,
- E. if so please specify which area: USE THE Q&A BOX
- F. i.e.: Marketing & sales / Tax compliance and operations
- G. I'm all set, thank you!

Q&A



Thank you



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