

# Embracing automation

General automation overview



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With you today



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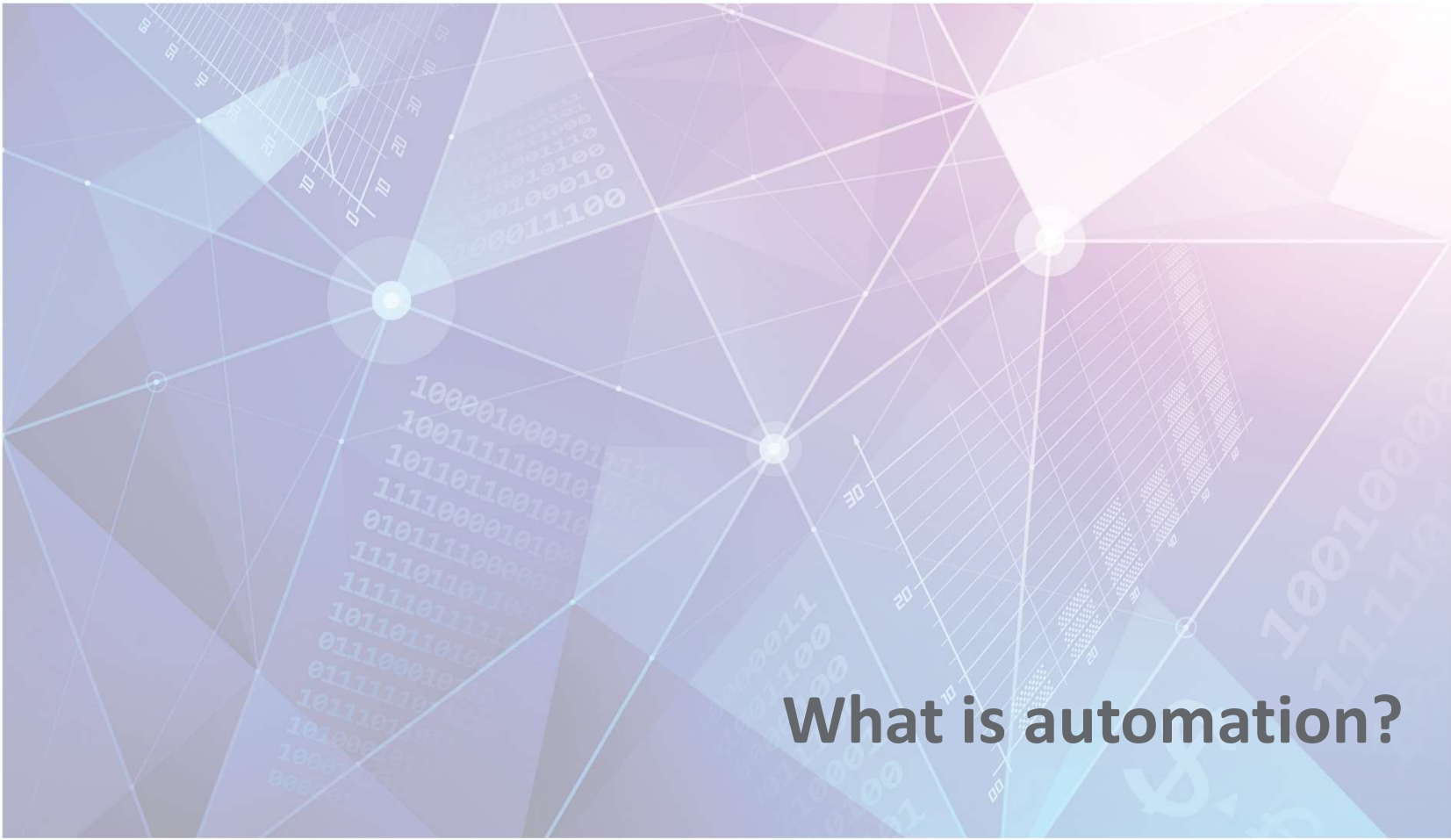
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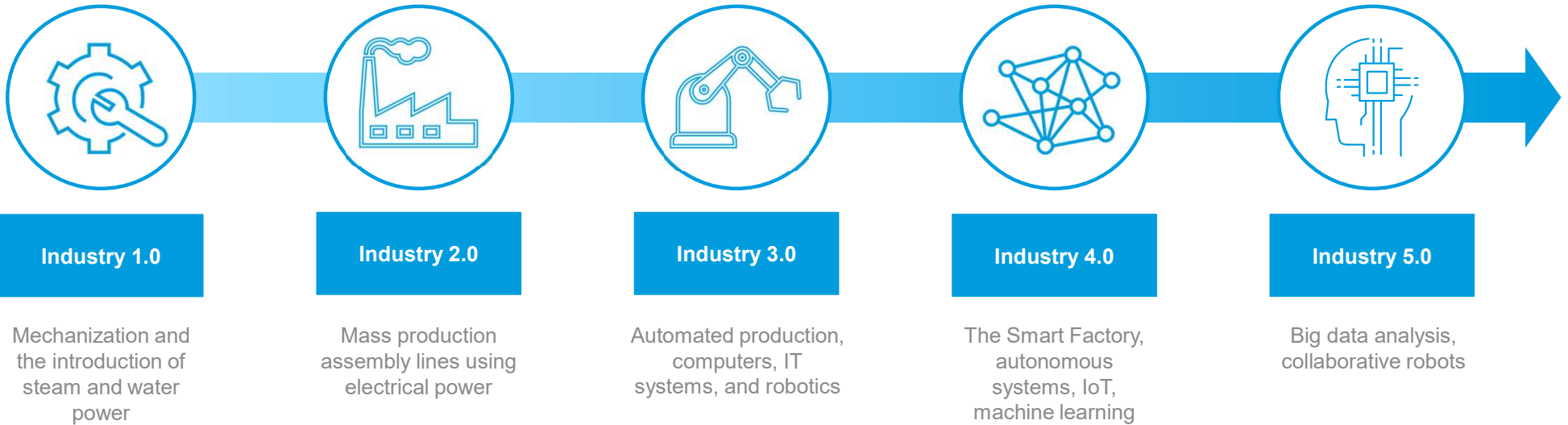
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# What is automation?



# History of automation





# Automation defined

Automation is the application of technology, programs, robotics, or processes to achieve outcomes with minimal human input. It includes enterprise applications such as business process automation (BPA), IT automation, network automation, automating integration between systems, industrial automation such as robotics, and consumer application such as home automation.

Types of automation:

- **Basic or task automation** takes simple repetitive tasks and automates them. An example of this is Robotic Process Automation (RPA).
- **Process automation** takes more complex and repeatable, multi-step processes by integrating with multiple systems and automates them. Examples include process mining, workflow automation, and Business Process Management (BPM).
- **Intelligent automation** combines automation with artificial intelligence (AI) and machine learning (ML) capabilities. This means that machines can continuously “learn” and make better decisions and actions based on data from past situations they have encountered and analyzed.



# Common terms in automation



## Artificial Intelligence (AI)

- Artificial intelligence is the development of systems to mimic human problem-solving behavior by computing a prediction and decision and then executing an action



## Generative AI

- Generative AI is a type of deep learning algorithm that can generate content by learning & imitating the patterns and structure of data it was trained on.



## Machine Learning (ML)

- Machine learning is a component of artificial intelligence focusing on the use of data and algorithms to imitate the way humans learn.
- The machine learns on its own by drawing inferences from patterns in the data, gradually adapting and becoming more accurate.



## Large language models

- Large language models are deep learning algorithms trained on vast datasets to understand, predict, and generate text in a human-like way.



## Deep learning

- Deep learning is a type of machine learning that attempts to simulate the human brain by creating artificial neural networks that utilize and extract more information from the data.



## Advanced analytics

- Advanced analytics is the application of advanced techniques and technologies, such as machine learning and artificial intelligence, to gain insights from data.
- This enables organizations to make data-driven decision, improving outcomes, accelerating processes, and reducing costs.

# Digital transformation trends



## The combination of automation and AI is essential to drive business transformation

AI, particularly generative AI, is now seen as essential for automation success—with its massive potential to supercharge business transformation and help manage potential risks.



## Intelligent automation addresses the productivity gap to help deliver on business outcomes

Organizations are increasingly embracing intelligent automation, which includes process automation, as the only path forward to overcome expected massive productivity gaps.



## Organizations are looking to scale their automation programs through citizen development

Organizations are looking to scale their automation programs to close growing productivity gaps, focusing on citizen development to accelerate their efforts.



# Automation is everywhere

## Healthcare

- More effective patient treatment plans
- Accurate drug development and discovery
- Precise medical imaging and diagnoses

## Finance

- Protect loan/credit privacy with sharable data
- Detect suspicious and fraudulent transactions
- Turn data trends into risk assessments

## Retail

- Tailor inventory and pricing based on demand
- Authentic virtual try-ons and less returns
- Generative product design and style transfers

## Manufacturing

- Optimize inventory tracing in the supply chain
- Amplify humans with collaborative robots
- Navigate the inner complexity of machines

## Professional Services

- Ensure compliance with regulations and industry standards
- Review and analyze large volumes of documents quickly and accurately
- Allocate resources efficiently, and improve project management

## Why automate?

Middle market companies must respond quickly to market changes in order to stay competitive and profitable. Using outdated, inefficient processes will lead to lost productivity when workers leave; those skills and knowledge also walk out the door with the people.

One key to increased efficiency and protection against lost productivity is automation. Automation uses technology to reduce the time, cost and risk of essential business processes.



It enables process efficiency that greatly reduces the time needed to complete processes. When data is automated, it can facilitate quicker and better decision-making.



It can help eliminate the need for humans to do repetitive manual tasks. This allows businesses to reduce the number of full-time employees and their associated costs and gives them the ability to attract needed highly skilled talent



It makes the business easier to work with for customers, vendors and service providers, creating a better experience for all.



Automation tools can help keep the knowledge around processes so that when an employee leaves, there's no disruption. The processes reside in the technology, not in someone's head.

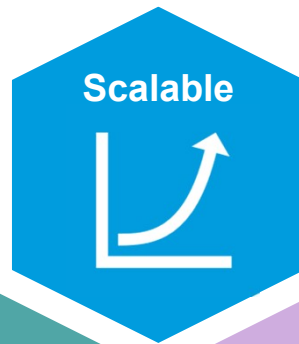


It reduces the introduction of inaccuracies and errors into processes, issues that can ripple through the organization and become costly from a time, money and compliance standpoint

- **Despite its proven benefits, middle market businesses have not adopted automation to the extent that larger enterprises have.**
- **They feel they may not have the budget or simply don't know where to start.**
- **This creates risk—the potential that those businesses slow to adopt automation are getting left behind by their competitors.**

# Value in automation

- Employee morale and **ability to retain talent**



- Improved **scalability without significant headcount increase**

- Reliable **reduction in process errors** and correction cycles

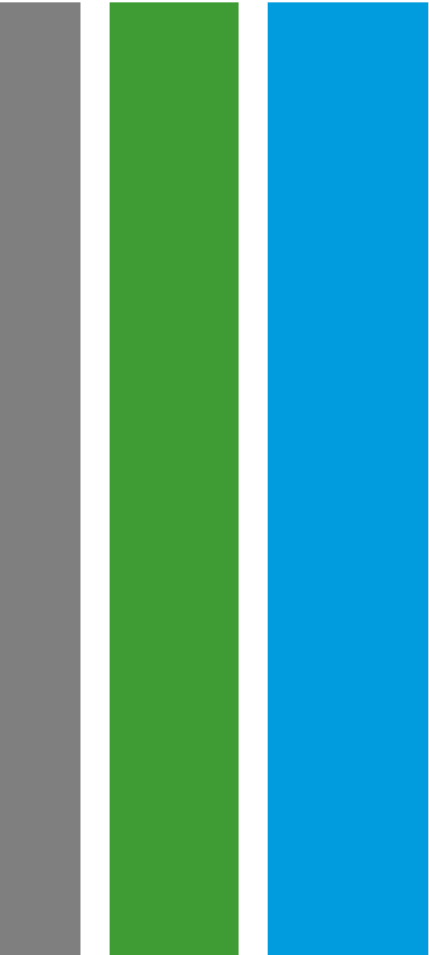


- Human **time refocused to higher value** / value-producing activities

- Enabling growth into areas of **competitive advantage**



- Multiple avenues for a **high return on investment**



**Where to start?**



# Where to start?

When looking to improve a business function, it's easy to focus on an automation solution that addresses the single process that's causing problems. By only treating the symptom, businesses can miss the systemic cause of the problem and not get the value from solution adoption.



## Take a holistic approach

- A better approach is a holistic one that starts with identifying the root cause of the inefficiencies and then builds an automation solution that takes the broader business factors into consideration to maximize the overall business value.



## Work with an advisor

- With so many automation solutions available in the market today, there are so many potential places to start with a pilot project. It can be a daunting initiative to undertake solo.
- Working with an advisor typically makes sense for middle market businesses. An advisor will take an objective look at current processes and start at the highest level: putting the challenges in the context of the overall business strategy and determining where and how the right automation technology will affect the business upstream and down and have the highest ROI.

# Starting your journey

Starting your automation journey can be an exciting and rewarding process, but it also requires careful planning and preparation. Here are some steps you can take to get started:



Define your automation goals and vision



Choose the right automation platform and tools



Assess your current automation maturity and readiness



Build your automation team and skills



Identify and prioritize your automation opportunities



Implement and scale your automation solutions



# Define your goals & vision



Before deciding on any automation solution, take a step back and analyze the end-to-end process to determine where the problem really lies. Confirm that the process is optimized and applies leading practices prior to applying any technology.



What are the benefits you want to achieve from automation?

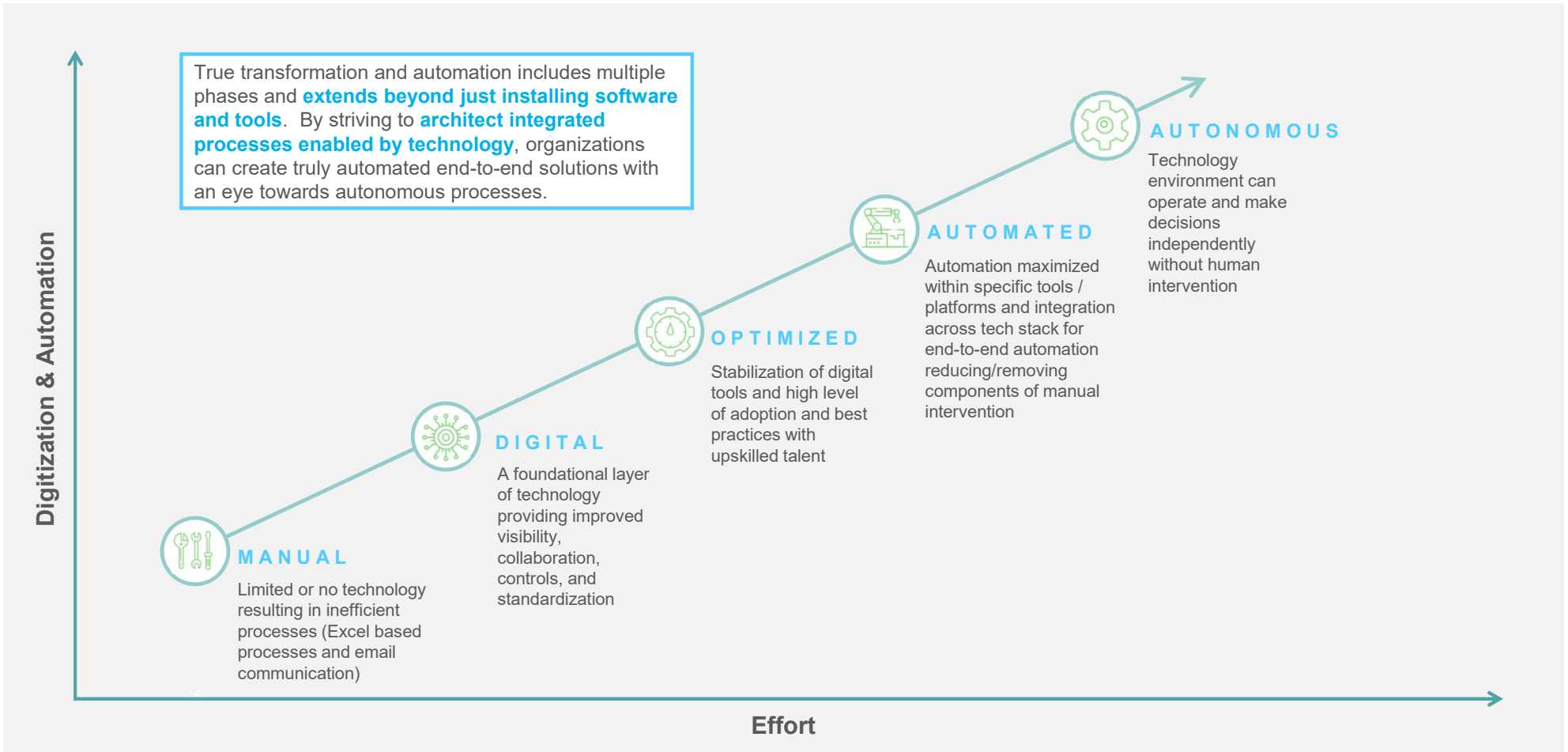


How will automation align with your business strategy and objectives?

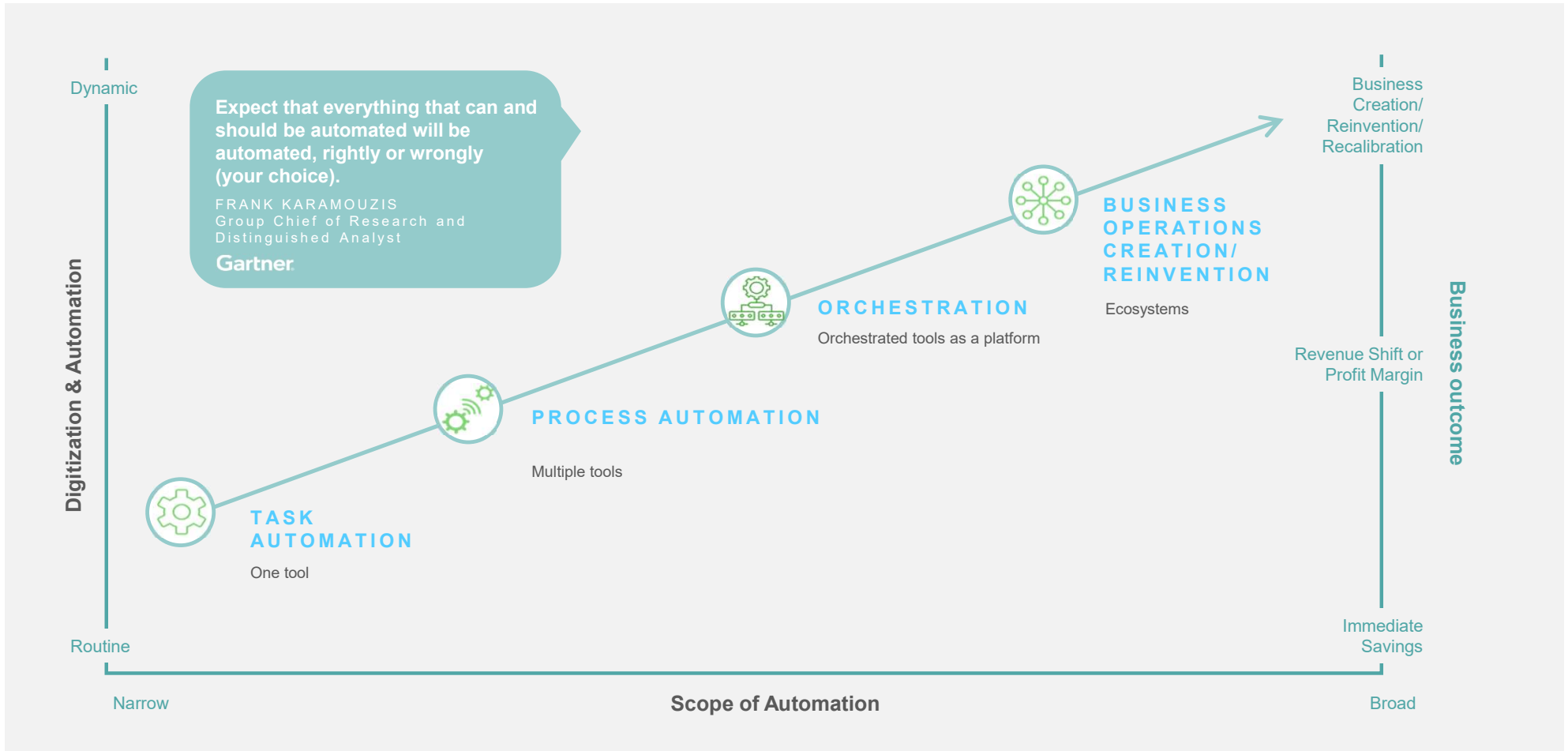


What are the key performance indicators (KPIs) you will use to measure your progress and success?

# Automation maturity model



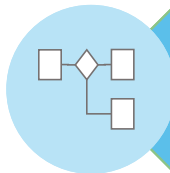
# Automation journey



# Automation opportunities




Do you have several different systems in place that don't talk to each other, require duplicative data entry, still use paper documents and excel spreadsheets for tracking and reporting.....Then you could use help from **automation**.




### Rules based

- Tasks are predictable and repetitive in nature
- Pre-defined guidelines are applied




### Manually intensive

- Large amount of time spent on processes
- Inability to focus on value-added work




### Cross-functional integrations

- Use of multiple systems
- Data sharing and standardization




### Gov risk compliance

- Documentation and recordkeeping
- Reporting and escalation




### High volume

- Longer processing times
- Lack of real-time Information




### Text recognition

- Hours spent reading lengthy documents
- Unable to locate content within documents



### Prone to errors

- Manual data entry
- Complex processes and calculations



### Workflow driven

- Applied inconsistently across the business
- Complex nature of workflow is present

# Factors contributing to return on investment

## Qualitative measures







- Upgraded brand reputation
- Improved visibility, transparency, and accountability
- Improved team collaboration
- Closer adherence to policies
- Improved employee morale and job satisfaction

## Quantitative measures



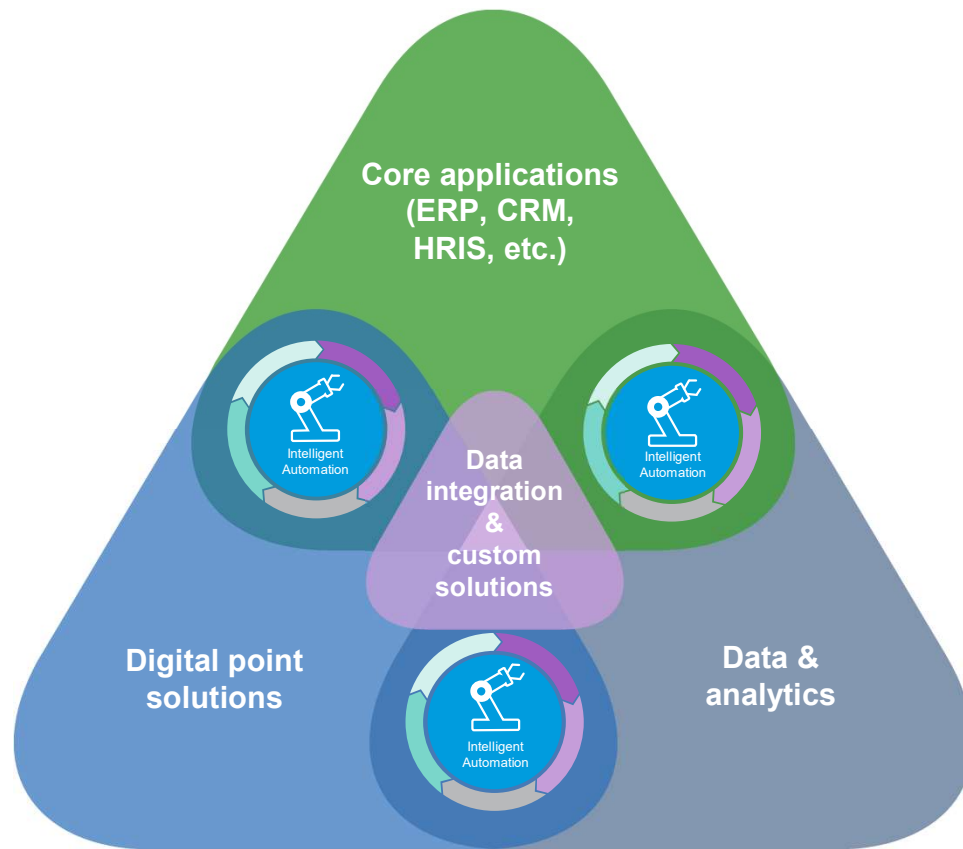
- Time saved per task or request
  - $\text{Number of iterations} * \text{frequency} * \text{number of individuals participating} = \text{total time saved}$
- Cost avoidance for error resolution
  - $\text{Number of errors per cycle} * \text{time to resolve errors} = \text{total cost mitigated}$
- Cost avoidance related to headcount increases as organizations scale

# Types of automation

 <h3>Platforms</h3> <p>Software that offers a set of capabilities that can be configured to meet different use case requirements.</p> <p><b>Platform Examples:</b></p> <ul style="list-style-type: none"><li>• Appian</li><li>• RPA</li><li>• Microsoft</li><li>• OpenAI</li></ul>	 <h3>Fit-for-Purpose</h3> <p>Off-the-shelf, packaged software that focuses on solving or automating a specific function.</p> <p><b>Point Solutions:</b></p> <ul style="list-style-type: none"><li>• BlackLine</li><li>• Coupa</li><li>• Workiva</li><li>• Solver</li><li>• Kyriba</li></ul>	 <h3>Integration Technologies</h3> <p>Solutions that provide inter-system connectivity for data exchange.</p> <p><b>Integration Technologies:</b></p> <ul style="list-style-type: none"><li>• Boomi</li><li>• Mulesoft</li><li>• Azure Machine Learning</li></ul>	 <h3>ERP</h3> <p>Automation within the context of ERP aims to improve efficiency, accuracy, and overall performance in handling these critical business functions.</p> <p><b>ERPs:</b></p> <ul style="list-style-type: none"><li>• Microsoft D365</li><li>• Oracle NetSuite</li><li>• Oracle Fusion</li><li>• SAP</li></ul>
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# Integrated automation architecture



An **optimized technology stack** that enables continued improvement in efficiencies and automation requires a **concert of technology platforms** to achieve the highest possible impact and value. Identifying and **investing in market-leading solutions** combined with **visionary implementation strategy** will establish a foundation for sustainable growth and success.

# Intelligent automation overview

## Intelligent automation solutions

Robotic Process Automation (RPA)	Digital Process Automation (DPA)	Intelligent Document Processing (IDP)
<ul style="list-style-type: none"> <li>• <b>Task based automation</b> focused on accomplishing targeted components of business <b>processes</b> without the need for significant human intervention</li> <li>• Capable of handling high volume, <b>repetitive manual tasks</b> on behalf of human process owners</li> <li>• <b>Fills the gaps</b> where systems do not have integration capabilities</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Workflow / case management</b> driven process automation to orchestrate collaborative work</li> <li>• Highly auditable data flows to improve compliance with relevant <b>regulatory requirements</b></li> <li>• Flexible <b>automation that scales</b> and grows with your organization to adapt to the evolving needs of your business</li> </ul>	<ul style="list-style-type: none"> <li>• The extraction of semi-structured data from digital documents (<b>images, PDF's, etc.</b>)</li> <li>• Transforms data from paragraphs, sentences, words into <b>discrete data elements</b> to derive decisions and action</li> <li>• <b>Enhance scope of RPA &amp; DPA</b> solutions to provide end to end processing of semi-structured data</li> </ul>

## Intelligent automation conceptual architecture



## Key benefits of intelligent automation implementations

- Reduce costs**  
*Efficiencies in process execution requires less resources to complete tasks*
- Rapid development cycle**  
*Low-code development decreases time to value on investment in solutions*
- Seamless integration**  
*Out of the box or custom integrations work with any current applications*
- Increased productivity**  
*Develop efficiencies within processes across teams to remove low value activities*
- Improved accuracy**  
*Defined rules and data validation removes errors and rework in processes*
- Powerful insights**  
*Real time data empowers leadership to make informed decisions and continuously improve operations*
- Scalable solutions**  
*Build applications for future growth that will not face issues with increases in volume*

# Core systems ecosystem enrichment



Accelerate and advance your automation journey by creating a well-architected digital ecosystem

Application dev & integration		Digital point solutions						Data analytics
<b>IPaaS</b> Integration Platform-as-a-Service	<b>Custom</b> eCommerce websites, web & Mobile Apps	<b>O2C</b> Order to Cash	<b>IA</b> Intelligent Automation	<b>S2P</b> Source to Pay	<b>S2R</b> Source to Report	<b>EPM</b> Enterprise Performance Management	<b>TM</b> Treasury Management	<b>DA</b> Data & Analytics

## Functional capabilities

<ul style="list-style-type: none"> <li>Enterprise application integration</li> <li>Support for ETL and Hub-and-Spoke patterns</li> <li>Monitoring and alerting</li> <li>Scale-out capability for high-performance</li> <li>Tight interaction with MDM</li> </ul>	<ul style="list-style-type: none"> <li>Custom-built applications</li> <li>Search engine optimization (SEO)</li> <li>Tightly integrated to back-end systems (ERP, CRM, etc.)</li> <li>Web, mobile, or windows-based apps</li> <li>B2B and B2C sites</li> </ul>	<ul style="list-style-type: none"> <li>Cash application</li> <li>Credit management</li> <li>Deduction management</li> <li>Electronic invoicing/EIPP</li> <li>Collections management</li> <li>Receivables management and intelligence</li> </ul>	<ul style="list-style-type: none"> <li>Robotic process automation (RPA)</li> <li>Intelligent document processing</li> <li>Digital process automation</li> <li>Automation strategy</li> </ul>	<ul style="list-style-type: none"> <li>Procure to pay</li> <li>Travel &amp; expense</li> <li>Strategic sourcing</li> <li>Inventory management</li> <li>Spend analysis</li> <li>Suppliers &amp; risk</li> <li>Supply chain design &amp; planning</li> <li>Service project management</li> <li>Contract lifecycle management</li> </ul>	<ul style="list-style-type: none"> <li>GL account reconciliations</li> <li>Task management</li> <li>Variance analysis</li> <li>Transaction matching</li> <li>Journal entry management</li> <li>Intercompany accounting</li> <li>Allocation accounting</li> </ul>	<ul style="list-style-type: none"> <li>Budgeting, forecasting, &amp; modeling</li> <li>Scenario planning</li> <li>Financial consolidation</li> <li>Tax and global stat reporting</li> <li>Corporate performance analytics</li> <li>Transactional analysis</li> <li>Variance &amp; predictive analytics</li> </ul>	<ul style="list-style-type: none"> <li>Bank connectivity</li> <li>Cash visibility</li> <li>FX risk management</li> <li>Liquidity management</li> <li>Working capital</li> <li>Centralize payments</li> <li>Fraud prevention</li> </ul>	<ul style="list-style-type: none"> <li>Financial data warehouse</li> <li>Reference and master data management</li> <li>Data &amp; reporting cataloging</li> <li>Data validation controls</li> <li>Data visualization</li> <li>Self-service BI</li> <li>Big data / IoT</li> <li>Data extraction &amp; transformation</li> </ul>
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## RSM technology partners

# Build your automation team & skills



To help ensure your automation transformation is successful, you'll need champions to drive the adoption process from start to finish and continue enforcing “the why” behind the use of the solution.



Who are the people and roles you need to support your automation journey?

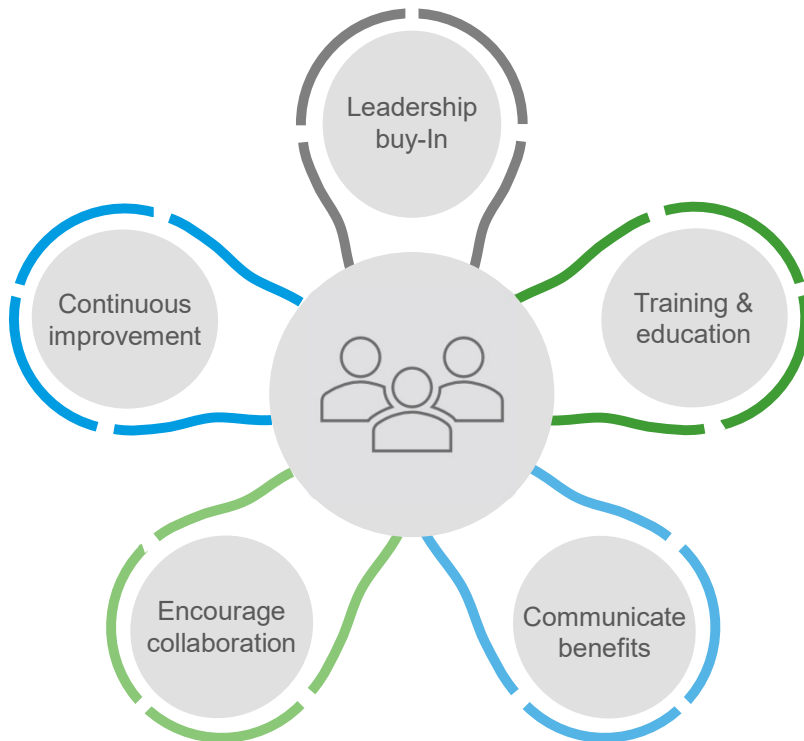


How will you train and empower them to design, develop, deploy, and manage automation solutions?



How will you foster a culture of collaboration and innovation among your automation stakeholders?

# Build your automation team & skills



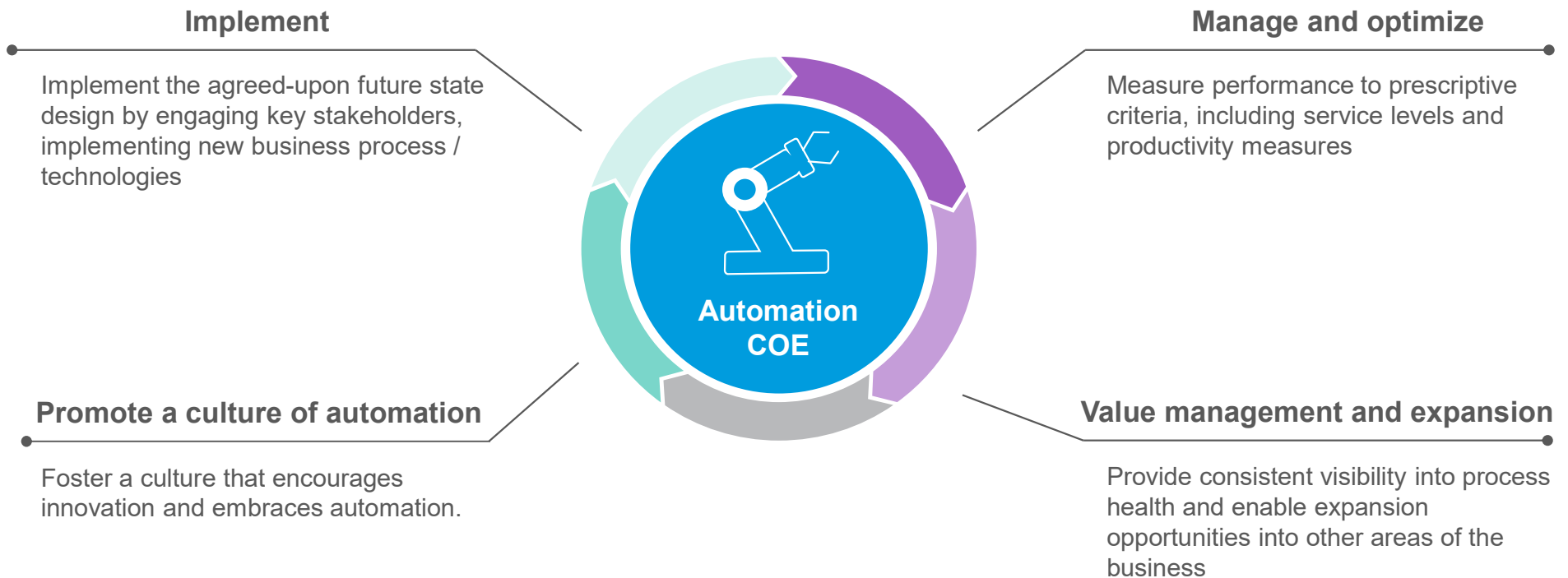
Promoting a culture of automation within an organization involves fostering an environment where automation is valued, encouraged, and integrated into daily workflows.

- Gradually **scale** automation initiatives based on the success of initial projects
- Ensure that teams have access to the necessary **tools, training, and support** to implement automation effectively.
- Regularly **review and optimize** existing automated workflows to ensure they remain **effective and aligned** with organizational goals.

# Effectively realizing automation at scale



To effectively realize the value of automation at scale, organizations need a centralized decision matrix to **evaluate**, **prioritize**, and **execute on** automation concepts collected from across the business based on a set of mutually understood criteria. The ultimate goal is to develop an **ever-growing backlog of opportunities** each with the potential to add value across the organization





## Finance business process improvement & automation enablement

**Industry** Real estate / property management

### Organization Overview

Private equity portfolio company is a third-party property international management company with challenges related to performing high-volume operational accounting activities. Additionally, the company bought the largest competitor and had challenges integrating two companies and the disparate finance and accounting functions as the target had more advanced processes.

### Impact

**65%**

Reduction of manual account reconciliations performed

**~24k**

Average automated journals posted monthly

**~350+**

FTE hours per month saved via three RPA use-cases

**~75k**

Bank transactions automatically matched per month



### Challenges

- **Manually intensive processes** – Processes were highly manual, Microsoft Excel-based, and time-consuming resulting in very little time to focus on strategic initiatives
- **Minimally leveraged technologies** – Complex system architecture comprised of home-grown custom technologies and limited fit-for-purpose solutions
- **Prolonged integration activities** – Disparate processes existed between legacy groups resulting in duplicative work and differences in overall service quality



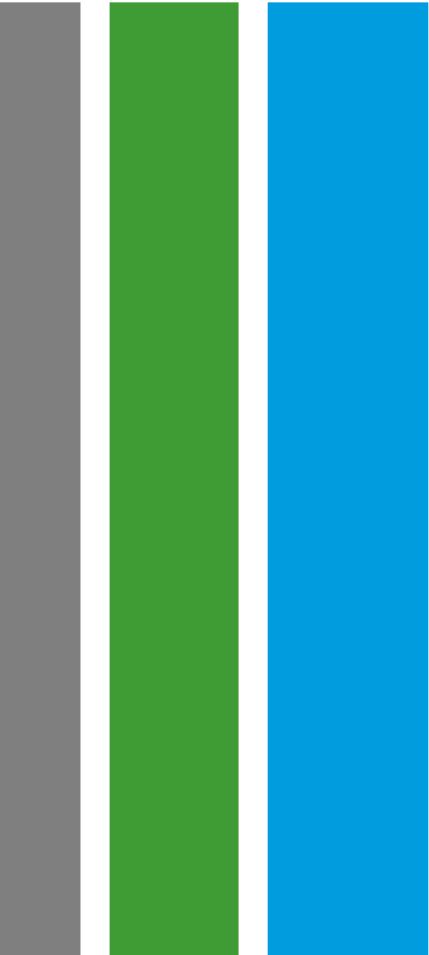
### Activities & solutions

- **Current state assessment** – Assessed current state processes within the finance & accounting functions to identify key pain points and inefficiencies and consolidated recommendations into a future state roadmap
- **Robotic Process Automation (“RPA”)** – Identified, designed and deployed RPA bots to optimize critical business functions, improve process scalability and maximize overall return on investment
- **Automated monthly close** – Identified and implemented BlackLine automated journals and matching throughout the finance & accounting functions to improve and optimize the close process and reduce manual efforts
- **Executive collaboration** – Worked collaboratively with project sponsors to prioritize recommendations using the future state roadmap as a guide



### Customer benefits

- **Process standardization** – Improved operational efficiency and optimized processes, standardized outputs distributed to managed properties, integrated disparate processes between legacy entities
- **Governance** – Provided governance around accounting policies and procedures, collaboratively established KPIs and metrics and integrated into dashboard views, managed portions of vendor management software and sales tax filing automation implementation
- **Technology utilization** – Improved capability utilization of licensed software, decreased time spent on manual, repetitive tasks to enable allocation to strategic initiatives



Q&A





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