



Accelerating automation

Plan your faster, smoother journey

kpmg.com

Contents

See the future	1
The automation journey: types and benefits	2
Rethinking automation myths	3
Your intelligent automation journey: The first 100 days	4
Case studies	6
See the bigger picture	8
Operating model considerations	9
Managing change: The human element	10
Create a human and machine partnership	11
Lessons learned: The dirty dozen of automation	12

See the future. Get there faster.

Intelligent automation is set to transform our lives. For business services, it promises huge gains, including lower costs along with better market insight into customer experiences.

45% of activities individuals currently perform in the workplace can be automated using already demonstrated technologies.⁽¹⁾

60.5% compound annual growth in robotics automation market forecast by 2017-20⁽²⁾

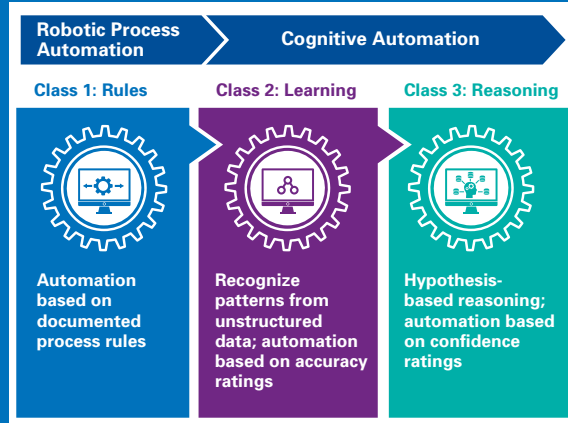
**More than
55%**



of global corporations currently exploring new automation opportunities⁽³⁾



As a result, many organizations are already using basic robotic process automation (RPA) to carry out simple, rules-based tasks to become more productive.



The next step is to introduce more sophisticated intelligent automation classes that have the potential to lead to transformational change.

To realize intelligent automation benefits faster, many organizations want to accelerate the automation journey. In our experience, seeking this goal requires planning that should follow four principles.

- 1 — Business led; technology enabled
- 2 — Use RPA to achieve greater productivity and as a stepping stone for enhanced process and cognitive automation that can lead to transformational change
- 3 — Start small, execute well and scale up rapidly
- 4 — Develop an internal automation capability to sustain progress

(1) McKinsey & Company – “Four Fundamentals of Workplace Automation” Nov. 2015
 (2) Transparency Market Research for CAGR
 (3) HfS Research and KPMG LLP – “From human to digital: The future of Global Business Services” 2016.

The automation journey: Types and benefits



Rules

Robotic process automation technologies address simpler processes that follow very explicit 'rules-based' documented manual steps, often leveraging multiple systems (e.g. order entry). These automation tools often reside on the desktop resulting in shorter integration times and a faster path to automation.

Examples



Activities such as journal entry, management information reporting, reconciliation activities, ordering, billing and commercial operations.



Customer service organizations automate tier 1 inquiries (e.g. changes to supplier addresses).



Learning

The next level uses built-in knowledge and natural language processing capable of recognizing patterns from unstructured data and automating based on accuracy ratings. This often includes starter automations right out of the box for activities such as IT operations and finance.

Examples



Machine learning software, designed to support customer onboarding, transaction monitoring and fraud prevention by identifying patterns in behavior that could indicate fraudulent payment activity.



International banks use natural language processing software to monitor internal communication and identify potential misconduct with regards to trading compliance.



Reasoning

Cognitive automation is the most recent entry into the intelligent automation space and should be used when confident with evidence-based rationale. It includes machine learning, artificial intelligence, natural language processing and big data analytics, which are used to create sophisticated technologies that think and learn like humans.

Examples



Artificial intelligence deployed by a global bank to deliver personalized advice to the bank's wealthy clients. The technology models 85 million behavioral patterns to show potential matches with different types of wealth management products.




Crop insurance providers use artificial intelligence in combination with aerial drones to photograph crops. Artificial intelligence helps insurers evaluate crop health and assess claims accurately. It also assists farms in detecting problems early to help them maximize yield.

Different types of automation offer varying potential benefits.



Rethinking automation myths


Misconceptions about intelligent automation can delay the automation journey or dilute potential benefits. Following are five common myths along with our views on the truth.

1  **“Implementing a bot will significantly improve productivity.”**


Yes, but boosting productivity is often more complex than expected. For example, implementing a new process and managing change simultaneously can dilute savings.

2  **“We need to transform our processes before adding RPA.”**


Ideally yes, but you can incorporate process transformation into your RPA journey, either before or after automation. RPA is another lever that can be combined with more traditional transformation tools.

3  **“We can deploy our first bot quickly.”**

The pilot can take longer than expected. This is because you need to build the right infrastructure, capabilities and sponsorship. The cost per bot will decrease significantly as you scale up and accelerate your execution speed.

4  **“We need to build lots of bots.”**

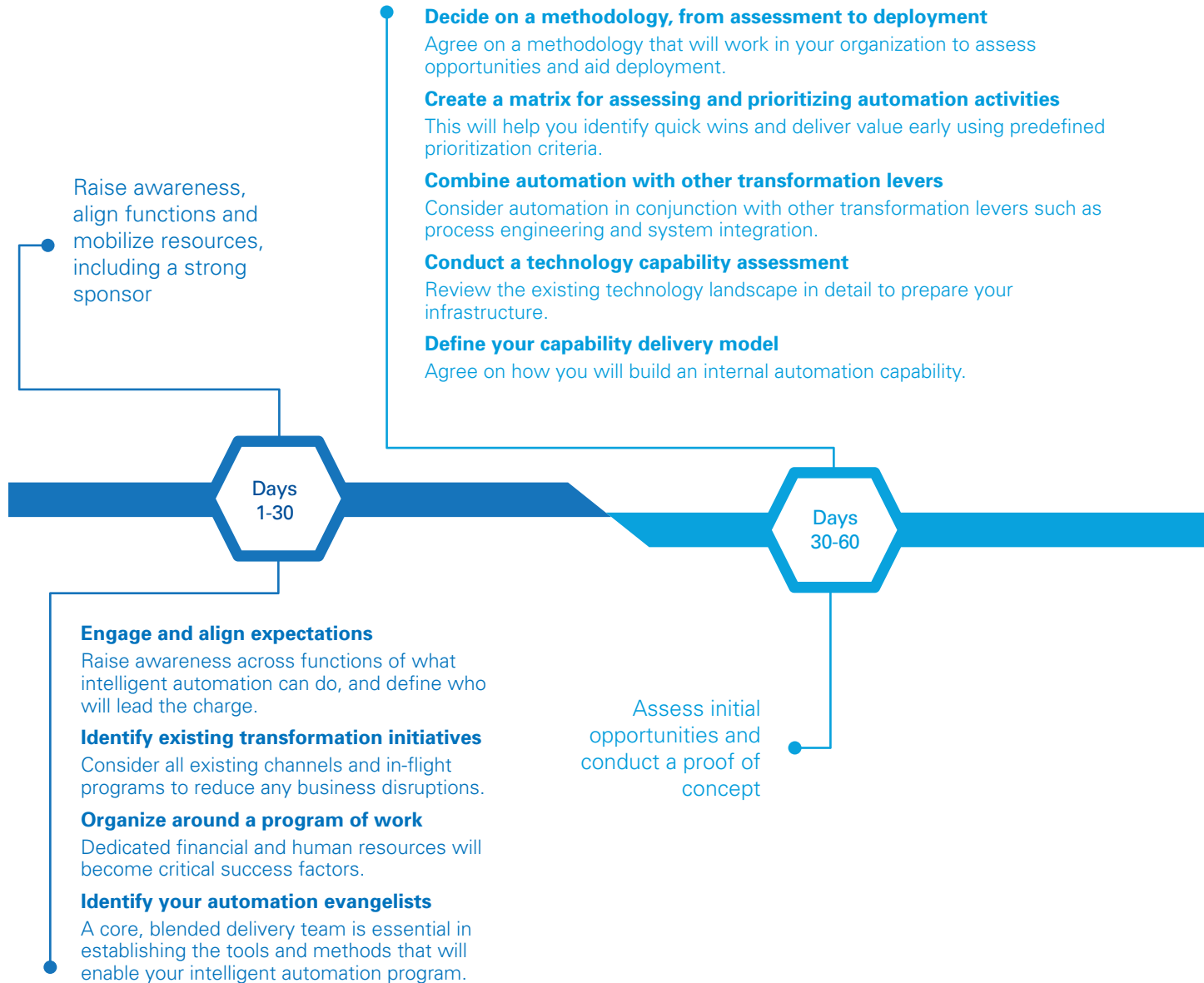
Don't get mesmerized by volume. Utilization per bot is a better measure for understanding automation effectiveness and efficiency.

5  **“We can move straight to cognitive solutions.”**

Evaluate your needs and capabilities. While some organizations begin with small cognitive pilots, RPA can also be a stepping stone in your automation journey.

Your intelligent automation journey: The first 100 days

With a detailed action plan, you can be ready to scale up to production in about three months.



...preparing to scale up

Assess proof of concept results, define your framework and build a roadmap to begin development at scale



Days
60-100

Scaling
up to
production

Assess and select vendors

Choose a vendor that meets the needs of today and tomorrow and gives you scalability and accelerated integration across different products.

Deploy a proof of concept to assess suitability

Test to see whether the vendor's technology is fit for purpose, robust and scalable across your organization.

Deploy infrastructure requirements

This will become a critical element to move into production at scale, beyond the first 100-day period.

Define and start building your Center of Excellence

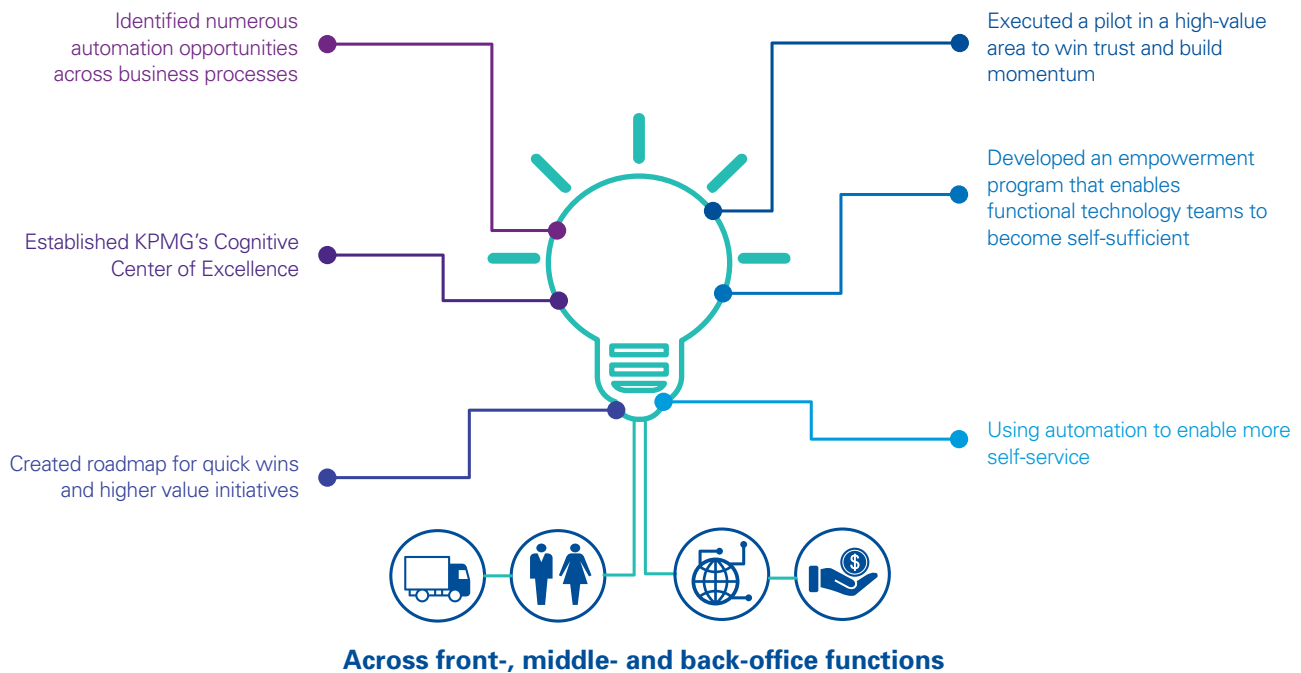
The new digital operation will require a framework for governance and change.

Develop an adoption roadmap

Outline what your automation journey looks like based on your defined case for change and business priorities.

Case study: Our own transformation

KPMG's network of firms has investigated short-, medium- and long-term opportunities for deploying intelligent automation technologies in our own business to drive operational efficiency, effectiveness and create a platform for innovation using intelligent automation technologies.



Holistic approach



Identified cross-functional opportunities spanning from RPA to machine learning and natural language processing

Designed for sustainability and scalability

Launched a Cognitive Center of Excellence



Tangible benefits



Identified opportunities across the firms to deliver better services in a more efficient manner

Tried and tested approach

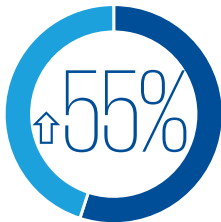
- 1 Cross-functional, thorough process review
- 2 Full lifecycle experience across multiple technologies
- 3 Leveraging the knowledge to support our clients

Case study: Top three global retailer

This UK-based client has a significant global presence and delivers back-office functions. This retailer's objective was to become fully compliant with a new regulatory framework, achieve better data quality and reduce operational costs.

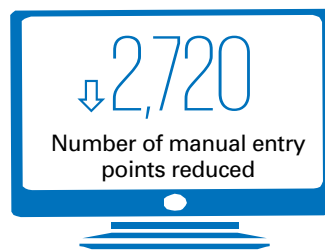
Delivered benefits

Operations can be delivered faster

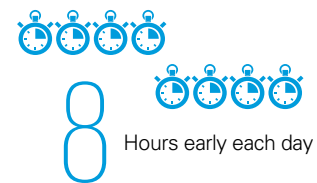


Elapsed time improvement

Reduced points of failure



Date availability



Front-office benefits



Additional time gained per query to investigate and resolve discrepancies resulting in potential cash savings

Potential headcount redeployment



Accuracy level observed

100%

**Approach:
Delivering benefits
and creating
internal client
capability**

Assessed the opportunities for automation

- reviewed processes to understand where automation would deliver the most benefit
- created a matrix to show implementation priorities
- facilitated internal customer engagement to adopt automation

Developed client's automation capability

- helped retailer develop the skills required to implement automation
- developed a methodology and customized tools to support the work
- provided on-the-job training to strengthen and embed client's new capability

Supported the technical architecture build

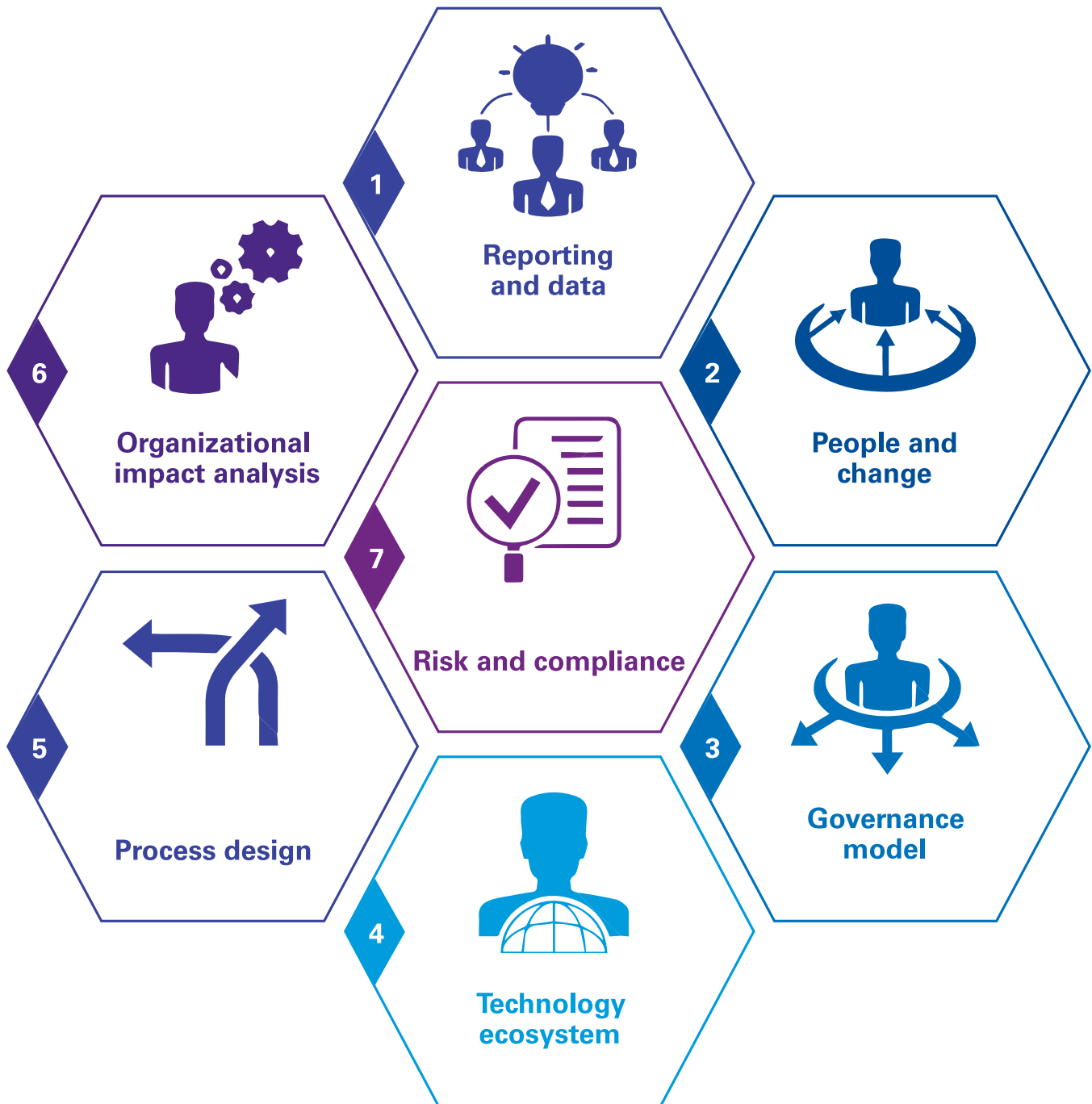
- assisted in designing the interim and end-state IT infrastructure
- provided oversight and support in implementing different system environments
- self-assessed risk across different program elements

Deployed the bots

- implemented the bots in a live virtual environment
- provided support from user acceptance testing to go-live
- monitored benefits realized based on the bots deployed

See the bigger picture

Implementing intelligent automation is more than just technological change. It affects components across your operating model.



Operating model considerations

-  **1 Reporting and data**

Adopting a new digital operating model will become an enabler for data quality programs, performance dashboards and centralized real-time information to enable better management information.
-  **2 People and change**

Refining the employee value proposition across the organization will become increasingly important. The new operational environment means you will need to upskill resources, provide alternative career paths and reinvigorate existing roles, such as continuous improvement specialists and process owners.
-  **3 Governance model**

The new environment will give you better control of changes or decisions that could affect operations. An environment with clearly defined roles and responsibilities will have potential impact across your current and target operating model.
-  **4 Technology ecosystem**

Intelligent automation can make it easier to deploy resources across different virtual environments. This can make operations more resilient, accelerate integration across systems and buy you time to address more structural and costly systemic changes.
-  **5 Process design**

Intelligent automation provides an opportunity to design thorough processes and realize the associated benefits. This will make operations more consistent, reduce process fragmentation and make ways of working more transparent.
-  **6 Organizational impact analysis**

Automation will shift the organization's focus from a departmental view to a process view. New roles will be created to control the digital operation, handle exceptions, and maintain and change bots. All of this will enable better integration across functions and geographies.
-  **7 Risk and compliance**

Deploying digital labor will give you measurable SLAs and auditable processes. Overall adherence to processes, policies and data disclosure across the organization will be significantly enhanced.

Managing change: The human element

Integrating your human and automated workforce must be carefully planned and executed throughout your automation journey. This new human-digital ecosystem requires fundamental changes in the skills and responsibilities across the entire organization and operations.



Create a human and machine partnership

In this context, adopting a structured change approach, from approved solution design to deployment in a live environment, remains a critical success factor in achieving a sustainable business-as-usual state.



Initiate the relationship as soon as possible

- Plan roles and responsibilities in advance of releasing your first bots
- Identify teams that will be impacted first based on your release strategy
- Take advantage of user acceptance testing to make introductions
- Provide training on new ways of working with clear focus on exception handling
- Understand breaking points such as process upstream dependencies



Integrate your new digital workers with your current teams

- Assess the resource requirements to retain and attract new talent
- Communicating and engaging with your new workers will be critical
- Train your management team since they will manage a newly blended workforce
- Make your change management team an active partner in this journey
- HR, Employee Relations and Communication teams will have to work even more closely



Recognize the need to create new career paths

- Review your existing employee value proposition to recognize the new workforce diversity
- Recognize that IT savviness will be a core skill across your organization
- Reconsider your current talent sourcing to better connect skills with career paths

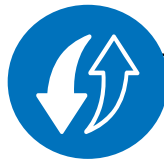
Lessons learned: The dirty dozen of automation

Our global network of firms has delivered more than 100 automation projects around the world. Here are some insights from along the way.



Establish an enterprise-wide capability

Regardless of where automation is initiated, the capability to deliver any intelligent automation proposal should have a thorough operational remit to build the right solution effectively.



Partner with your technology function

The technology function will be a key partner in enabling your digital transformation. Their ability to generate scalability (e.g. testing environments, bot credentials, etc.) will help determine your intelligent automation program's success.



Strike the balance of your digital transformation

Intelligent automation is a vehicle to transform your business. But it needs to co-exist with other levers such as process re-engineering, system integration and organizational design to enhance the opportunities automation presents. How you sequence these will determine the value you unlock for your organization.



Protect your business case

Ensure you fully understand the ramifications of any existing in-flight transformation initiatives on your automation pipeline. Align and communicate any overlaps to avoid diluting estimated potential savings in your business case.



Select vendors aligned with your ambition

Understanding the intelligent automation product evolution and having a clear vendor management strategy are key considerations for a digital transformation. Select products that can be augmented, machine learning and AI, for example, to meet your automation ambition.



Start small; deliver swiftly

Achieving some early successes will help build momentum and give your intelligent automation agenda credibility, allowing you to compete for and secure the organizational resources required to move forward.



Set your priorities and the rest will follow

There is no right sequence for adopting different types of automation technologies. Your business priorities and the level of benefits required should inform your decision on which automation solution to adopt.



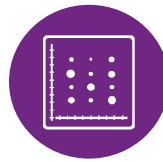
Consider business scalability

Cloud solutions and data accessibility will become more relevant as you progress through your intelligent automation journey. Both are enablers for enhanced automation such as machine learning.



Build solid foundations

Build your intelligent automation program structure with a long-term strategic intent. Over time, this will allow your project team to transition into a core part of your business-as-usual structure.



Evolve your analytics capability

An intelligent automation program will give you access to near real-time transactional data and an opportunity to develop new analytical layers in your data and analytics portfolio.



Identify and incent talent

Use the intelligent automation program lifecycle as an incubator for upskilling and redeploying talent across your newly established digital operations. In parallel, articulate a clear retention strategy at the beginning of the program to help retain your top talent and mitigate against any business continuity risk.



Automation 'horses for courses'

You will need to explore different types of automation classes to identify cost-effective use cases and deploy suitable automation solutions. This is a critical success factor in realizing targeted benefit types.



Contacts



Cliff Justice

KPMG in the U.S.
Principal, U.S. Intelligent
Automation Leader
cjustice@kpmg.com
+1 713 319 2781



Todd Lohr

KPMG in the U.S.
Principal, U.S. Intelligent
Automation Leader
tlohr@kpmg.com
+1 215 300 4600



Bill Cline

KPMG in the U.S.
Intelligent Automation and
D&A National Advisory
Leader
wccline@kpmg.com
+1 704 335 5552

kpmg.com/us/intelligentautomation



Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act upon such information without appropriate professional advice after a thorough examination of the particular situation.

©2018 KPMG LLP, a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks of KPMG International