HFS

Go beyond RPA with integrated automation to enhance operations transformation

Defining Future Business Operations

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Attaining success and scale with automation is a challenge for many enterprises. HFS is working with Pega to profile integrated automation journeys and highlight the importance of a holistic approach to process automation with robotic process automation (RPA) in the toolbox. Challenges include knowing which tool to use when and which combination of tools will provide the best result.
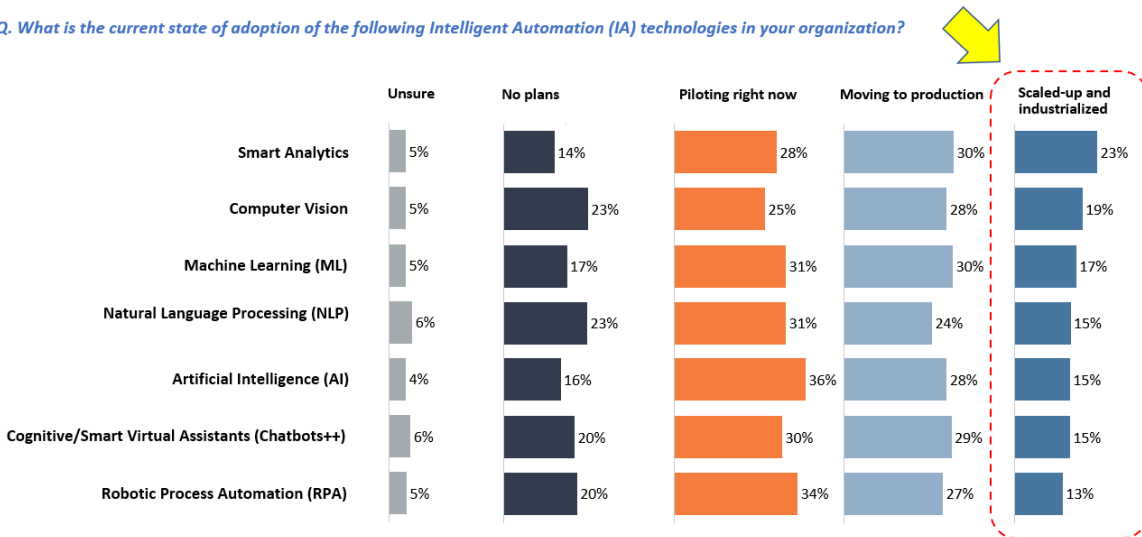
UK-based NBS (Nationwide), the world's largest mutual financial institution, uses Pega Infinity™, a platform for customer engagement and intelligent automation, to automate workflows between colleagues. NBS wanted to embed automation as a standard business capability across functional silos. This was not its first attempt to automate processes, and previous efforts had varying success.

Integrated automation means pulling on more than one lever to effect lasting change

HFS advocates using a toolbox approach to integrated automation rather than relying on pulling a single technology lever in isolation. Integrated automation, as introduced in the *HFS blog post RPA is dead. Long live integrated automation platforms* is automation (including RPA), AI, and analytics. For HFS, integrated automation includes automation integrated at the platform level, such as business process management (BPM), case management, enterprise resource planning (ERP), and customer relationship management (CRM). We extend this to include integration across people, process, and technology, supported by focused objectives and change management. Integrated automation can transform a business and help it achieve an end-to-end Digital OneOffice. Many automation attempts get stuck in the proof of concept stage and struggle to get to scale (Exhibit 1). When asked about intelligent automation technologies, the C-suite indicated varying levels of success with intelligent automation technologies at scale; RPA shows as the least-scaled technology at 13%.

Exhibit 1: Getting over the hump from pilot into production at scale proves challenging for many

Q. What is the current state of adoption of the following Intelligent Automation (IA) technologies in your organization?

	Unsure	No plans	Piloting right now	Moving to production	Scaled-up and industrialized
Smart Analytics	5%	14%	28%	30%	23%
Computer Vision	5%	23%	25%	28%	19%
Machine Learning (ML)	5%	17%	31%	30%	17%
Natural Language Processing (NLP)	6%	23%	31%	24%	15%
Artificial Intelligence (AI)	4%	16%	36%	28%	15%
Cognitive/Smart Virtual Assistants (Chatbots++)	6%	20%	30%	29%	15%
Robotic Process Automation (RPA)	5%	20%	34%	27%	13%

Source: HFS Research 2020

Sample = 590 Business Leaders including 100 C-level executives

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BPM is the center of orchestration, accompanied by RPA for hard-to-reach areas

After conducting a technology strategy review in 2017 and 2018, NBS concluded that it needed low-code business process management software to handle workflows between colleagues. Previous attempts to resolve bottlenecks with other tools did not impact workflow pain points sufficiently. Nationwide evaluated BPM software for its ability to support three main objectives across the organization: to handle exceptions better, to create a robust audit trail, and to establish comprehensive workflow and case management. The goal is to remove human intervention for lower-level tasks wherever possible by using BPM and a combination of RPA, optical character recognition (OCR), and text understanding.

NBS has used Pega's RPA since 2015 to reduce human error and keying time

Nationwide selected Pega BPM from a scored shortlist of three options; IBM and Appian were the other two final contenders. NBS had been using Pega RPA (formerly OpenSpan) since 2015 for attended automation of front-office and back-office tasks that required a lot of keying between different legacy applications.

Get more power from an integrated automation approach

The previous start with RPA, before BPM was implemented, addressed short-term problems, but it was not transformative—it simply automated existing tasks. There was little scope for optimization as the underlying applications' business logic was the limiting factor. The RPA software was stuck with what human colleagues were stuck with, although RPA could manipulate tasks in a different order. The software automated repetitive tasks, but not full processes. In the front office, Pega attended RPA automated some customer-facing tasks. Front-office staff were using multiple systems and frequently rekeying data from one system into another. RPA cut down keying time, driving process turnaround times as fast as screen response times could permit, faster than humans and with no errors.

NBS's integrated automation approach is using RPA as an API

BPM came into the picture after RPA and swiftly took the central role. NBS deployed Pega Infinity for Intelligent Automation with a combination of Pega low-code application development and Pega RPA. The intention is that Pega's BPM handles the bulk of the automated workflows and sometimes uses unattended RPA as an integration point between BPM and legacy applications. For example, for establishing workflows with mainframe systems where a digital front-end is not tied into the back-end and there were no application programming interfaces (APIs), RPA will be used to create a work queue or to allocate work to humans (or software robots).

Another scenario where RPA proves useful is when on-premise APIs are not accessible from BPM in the cloud. Despite the technical simplicity of pointing the BPM directly at the API with straightforward visual data mapping, on-premise APIs may not have been exposed to the cloud. On-premise RPA presents a viable alternative, exposing the target application's data or experience handling capability so it can be called from within a workflow.

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Unattended RPA on physical computers using their own credentials carries out "happy path" process scenarios (default rules-based scenarios with no exceptions or error conditions) where the majority can be completed without colleague intervention, for example, Personal Protection Insurance (PPI) remediations. RPA manages workflows, allocating them to the right people with the right permissions and an audit trail in a low-code environment with visual modelling.

Balance efficiency of business users and IT discipline

In introducing Pega's BPM at the center of workflow management, NBS sought to empower citizen developers, which it describes as a configuration team. Pega enabled successful results through no-code citizen development. NBS was also mindful of the downsides of ungoverned end user computing (EUC). It wanted a manageable balance of efficiency without impacting IT discipline and rigor. This is handled at the process prioritization stage. NBS' business units (BUs) identify opportunities for automation and prioritize automation opportunities according to a combination of expected savings, FTEs employed, and criticality of business process.

People come from the BUs with proposed processes, such as Refer a Friend, that could be automated. This is where the guardrails kick in. The IT department is a part of the process prioritization team, and it guides the choice of the tool business unit citizen developers will use. Process simplification is the first port of call, with representatives of different silos working as one team across the business from mortgages to current accounts. Collaborating with colleagues, this process simplification team looks for process improvement opportunities, using a master process list as a starting point for workflow and case management applications. Where the team encounters niche processes and products, such as complaint handling, it invests initial effort in simplifying and configuring the process, then it works with the Pega BPM software and RPA.

The right skills were easy to find in the business

Companies often cite a lack of talent as a barrier to process automation. There are two main challenges: grappling with resources displaced by automation and cultivating the necessary skills to pursue the integrated automation strategy. In NBS' view, the skill level of the key competencies it needed was similar to Excel macro creation and maintenance. NBS found this core competence in its own people, who quickly picked up the new technology, and recruited more people to work with it from within operational units, not IT developers. NBS devolved configuration to the finance team, which is expanding BPM and RPA to other parts of business along with the IT department. NBS successfully recruited and quickly trained internal colleagues from business units. RPA is visual configuration rather than code, and it has generic application integration already built in.

A steady pattern emerged. NBS achieved time savings; business units use the time people save to enable more interesting work. For high-volume processes with simple business logic, time savings can be made easily.

RPA alone is not transformative, and NBS realized it needed an RPA exit strategy

NBS did not initially engage with RPA with an exit strategy in mind; at first, it didn't think it needed one. NBS formed the view that if RPA only automated keying data into applications, it was non-transformative, and in fact, it served to enforce legacy systems and processes. Considering RPA's reputation of serving as a stop gap, it is not low cost. The quotes NBS received from big RPA vendors were not cheap, but there are circumstances where RPA is useful, such as to point at applications or to record a macro. As Jim Knight, Senior Enterprise Architect, NBS says, "You've got to take a holistic approach to process automation, figuring out which automation treatment to apply to which process problems."
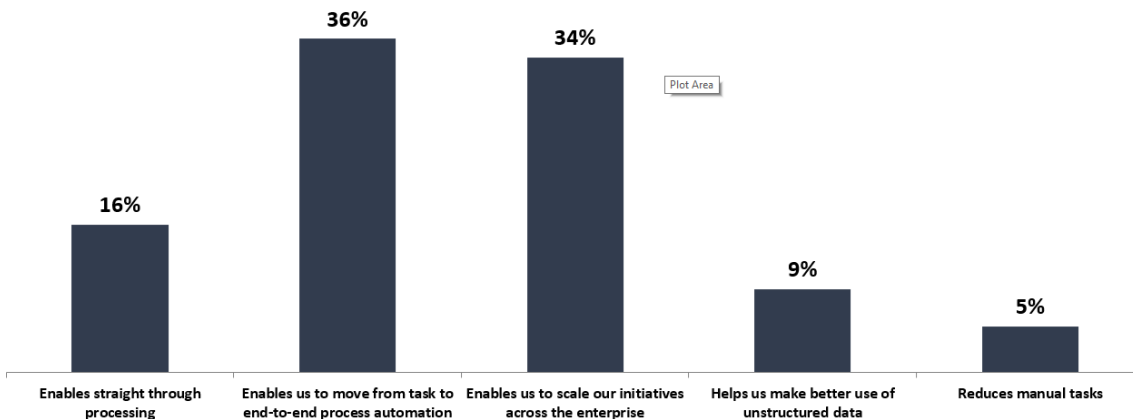
> *"You've got to take a holistic approach to process automation, figuring out which automation treatment to apply to which process problems."*
>
> Jim Knight, Senior Enterprise Architect (Application Architecture & Automation), IT Strategy & Architecture Operations & Delivery, NBS

NBS thinking is in line with HFS research that shows multiple lever pulls of complementary technologies gives rise to more impactful results. In Exhibit 2, 36% of respondents saw an integrated approach as more likely to enable the movement from task-based automation to tackling end-to-end processes, while 34% said it enabled scale across the enterprise.

Exhibit 2: Integrated automation delivers more benefits than approaching problems with a single tool

Which is the most important benefit of integrating AI, analytics and automation technologies from your perspective?

16% — Enables straight through processing	
36% — Enables us to move from task to end-to-end process automation	
34% — Enables us to scale our initiatives across the enterprise	
9% — Helps us make better use of unstructured data	
5% — Reduces manual tasks	

Source: HFS research 2020

Other tools in the toolbox are intelligent automation and email bots (intelligent virtual assistants)

In the concerted efforts to get unnecessary human effort out of processes, processes must ingest unstructured data. NBS uses the Pega Email Bot to interpret and route emails to automated processes in BPM and plans to interpret images in the future.

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During the COVID-19 pandemic, many turned to RPA to handle sudden spikes in processing or rapidly changing processes as governments around the world put measures in place to support and protect businesses and individuals. NBS sought short-term help from RPA to cover members' payment and credit card holidays, or other requests for permission to miss some scheduled payments. Members apply for payment holidays through a digitally accessed form, then colleagues process the digital request. NBS created a short-term fix using RPA to reduce the burden of back-office keying the queued requests into legacy applications.

The Bottom Line: NBS is leveraging the power of "and" to drive integrated automation and enhanced business results beyond what RPA alone could ever produce.

It was convenient for NBS that Pega integrated RPA into its product suite because as NBS transitioned to a BPM-centered approach, it benefitted from the additional integrated automation tools and pathways to optimizing automation opportunities. NBS' longer-term vision and investment focus seeks to embed case management in the center of as many business processes as is practicable. The possibility of not using colleague facing applications, a blend of end user computing and homegrown legacy applications, is under exploration, perhaps putting that knowledge and logic into BPM to handle interactions (e.g., processes interacting with the customer relationship management (CRM) systems for lost and stolen cards or name changes. Accepting that it's hard to change a business process that's embedded in the underlying application, by moving to BPM as the central point of orchestration, the business logic will be housed in the BPM. NBS is confident this will deliver an ability to scale process automation across the organization more than RPA alone could.

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Miriam's focus is on Integrated Automation across the Triple-A Trifecta (automation, AI, and analytics) from a people, process, and technology lens and her key areas of expertise include IT services contracts and market evaluation. Miriam also has considerable experience in systems implementation, systems integration, business analysis, technical analysis, consultancy, and strategic marketing.

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DEFINING BUSINESS OPERATIONS IN THE NEXT DECADE

About HFS Research: Defining future business operations

The HFS mission is to provide visionary insight into major innovations impacting business operations, including: automation, artificial intelligence, blockchain, Internet of things, digital business models, and smart analytics.

HFS defines and visualizes the future of business operations across key industries with our Digital OneOffice™ Framework.

HFS influences the strategies of enterprise customers to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors.

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