ESG BRIEF

Robotic Process Automation Adoption Trends

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ABSTRACT: As organizations look for ways to streamline operations, improve efficiency, and reduce costs, they are increasingly embracing automation technology like robotic process automation (RPA). While some view RPA as an ultimate destination to achieve peak business and process efficiency, those organizations that view themselves as digitally transformed have already embraced it and have their eyes set on the next phase: intelligent automation, where RPA is paired with artificial intelligence (AI) and machine learning (ML) to not only interact with systems but also to predict future insights/outcomes based on trending data.

Overview

Robotic process automation is a technique that uses technology and software to automate structured and repetitive business processes. Computer software is configured to mimic the actions of humans in a bot-like fashion, enabling rapid interaction and transmission of data from source to destination based on established business processes and their underlying data flows. While humans require breaks, have defined working hours, and are predisposed to mistakes, bots never sleep, never stop, and, when programmed properly, make no mistakes. From data capture through data manipulation to the triggering of predefined actions/responses, and finally communication with the destination entity, bots enable predictability in the timing of business process execution.
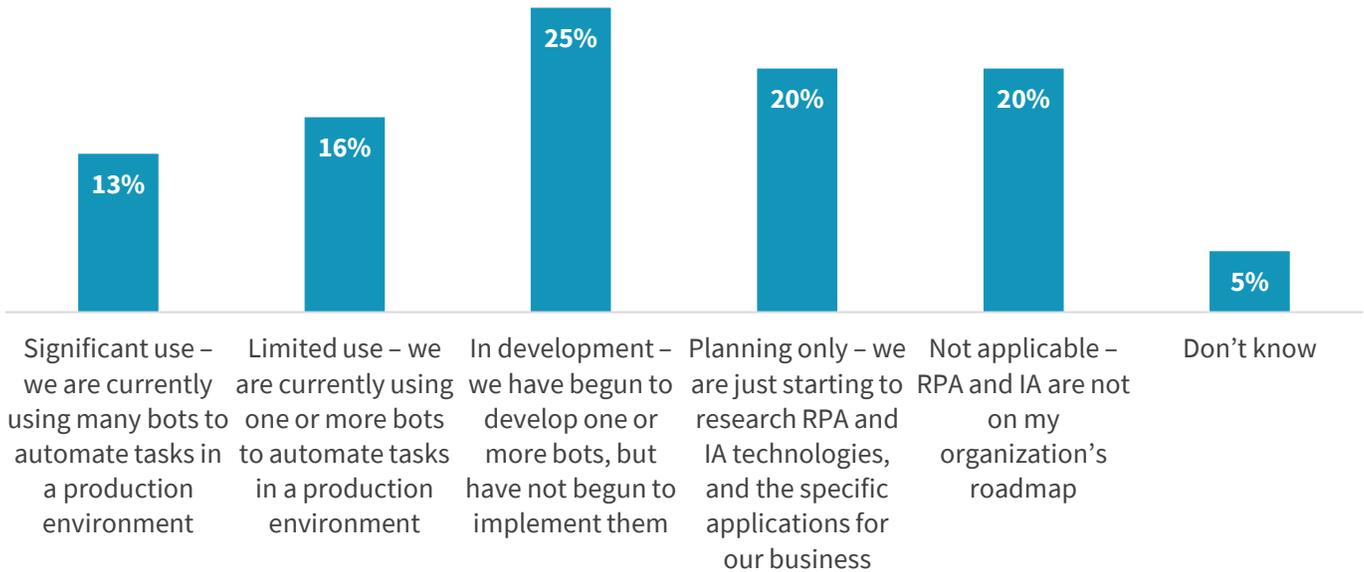
ESG recently completed its annual technology spending intentions survey of 658 senior IT decision makers at midmarket (i.e., 100 to 999 employees) and enterprise (i.e., 1,000 or more employees) organizations across North America and Western Europe.[1] As part of that research, respondents were asked to describe their progress in terms of automating routine tasks through robotic process automation (RPA) and intelligent automation (IA) technologies. According to Figure 1, nearly one-third of all respondents report that their organizations are currently using bots to automate tasks in a production environment to either a significant (13%) or limited (16%) extent. Additionally, one-quarter of organizations have developed bots that are just awaiting implementation, while another 20% are researching these technologies and specific applications to their business. Only one-fifth of the respondents say their organization does not have RPA/IA technologies on their roadmap.

In terms of company age, the trend is for younger organizations to be further along in their automation journeys. Specifically, organizations that have been in business for 10 years or less are much more likely than organizations that have been around for 50 years or more (33% versus 24%) to use bots to automate production environment processes to varying degrees (see Figure 2). And it makes sense. Younger companies born in the digital age often find it easier to implement newer technology simply due to the fact that there are less points of friction: less people, no legacy infrastructure, and no rigidity in years-worth of established workflows.

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[1] Source: ESG Research Report, *2020 Technology Spending Intentions Survey*, February 2020.

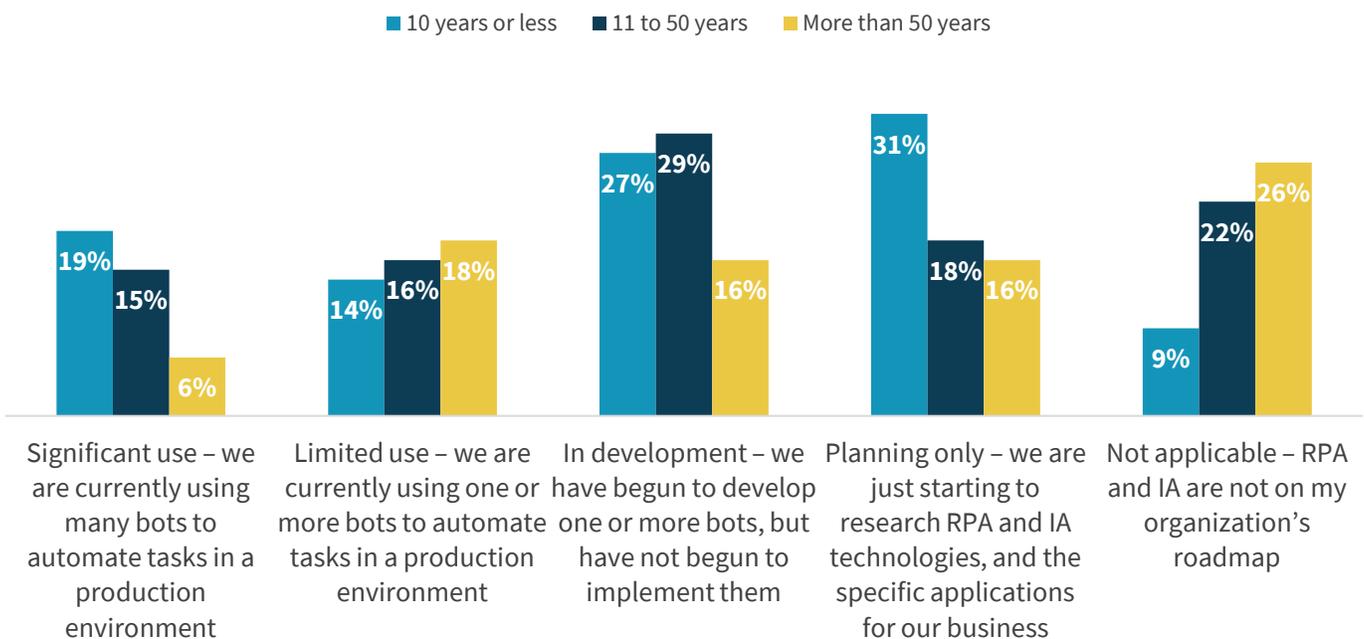**Figure 1. Nearly One-third of Organizations Are Using RPA/IA**

How would you describe your organization's progress in terms of automating routine business tasks through robotic process automation (RPA) and/or intelligent automation (IA) technologies? (Percent of respondents, N=658)

Category	Percent
Significant use – we are currently using many bots to automate tasks in a production environment	13%
Limited use – we are currently using one or more bots to automate tasks in a production environment	16%
In development – we have begun to develop one or more bots, but have not begun to implement them	25%
Planning only – we are just starting to research RPA and IA technologies, and the specific applications for our business	20%
Not applicable – RPA and IA are not on my organization's roadmap	20%
Don't know	5%

Source: Enterprise Strategy Group

Figure 2. RPA Usage Is More Common among Younger Organizations

Usage of robotic process automation (RPA) and/or intelligent automation (IA) technologies, by age of organization. (Percent of respondents)

Legend: ■ 10 years or less ■ 11 to 50 years ■ More than 50 years

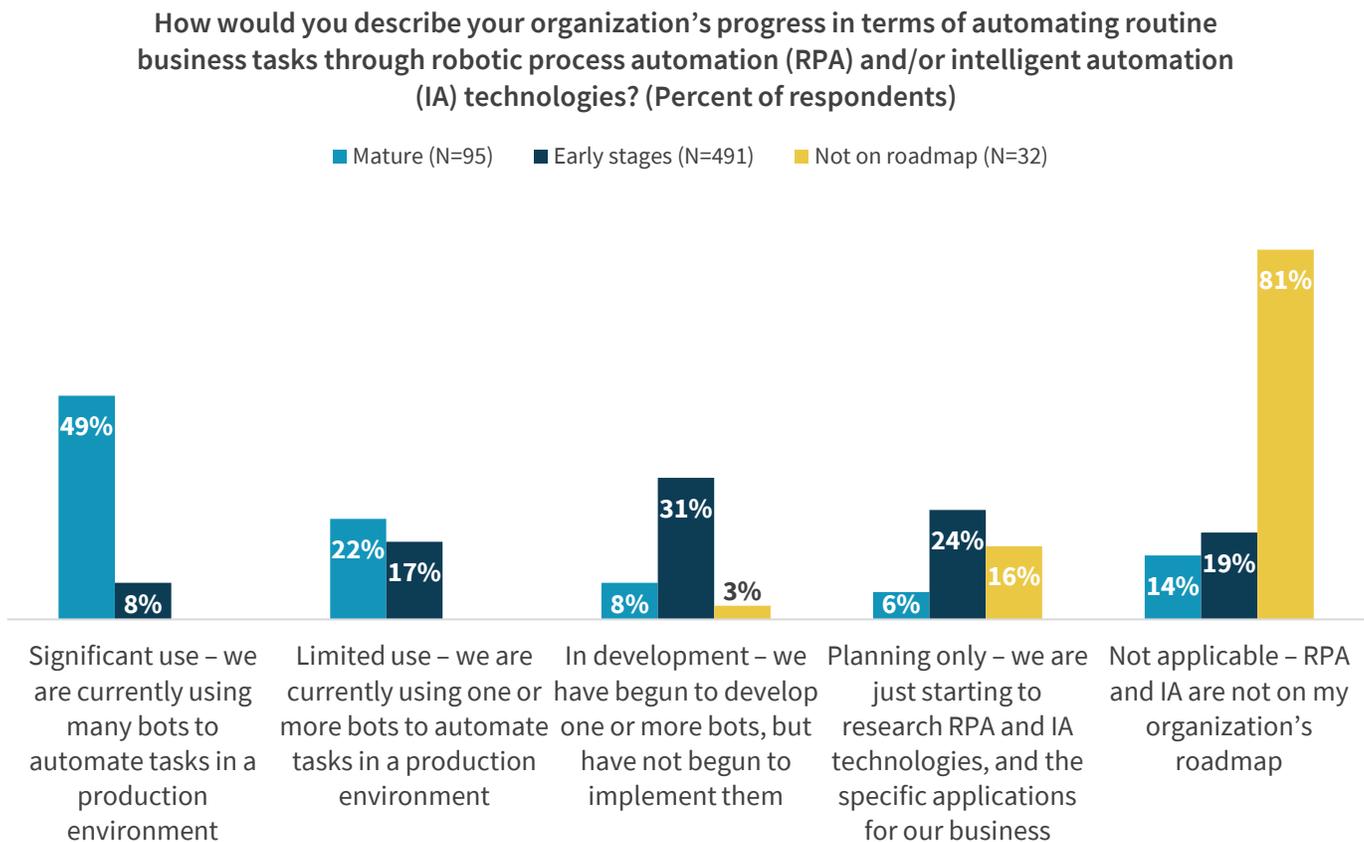| Category	10 years or less	11 to 50 years	More than 50 years
Significant use – we are currently using many bots to automate tasks in a production environment	19%	15%	6%
Limited use – we are currently using one or more bots to automate tasks in a production environment	14%	16%	18%
In development – we have begun to develop one or more bots, but have not begun to implement them	27%	29%	16%
Planning only – we are just starting to research RPA and IA technologies, and the specific applications for our business	31%	18%	16%
Not applicable – RPA and IA are not on my organization's roadmap	9%	22%	26%

Source: Enterprise Strategy Group

The most prominent difference between organizations that have embraced automation software and those that have not is that those organizations that have embraced it are also further along in their digital transformation journeys. ESG grouped organizations into one of three categories based on digital transformation progress:

- **Mature** – organizations that have implemented and optimized several digital transformation initiatives.

- **Early stages** – organizations that are currently implementing and executing various digital transformation initiatives, have formalized initiatives and goals but have not begun to implement them, or are starting to discuss and formalize initiatives and goals.

- **Not on a roadmap** – organizations in which digital transformation initiatives are not on their roadmaps.

According to Figure 3, nearly half (49%) of organizations that are mature in their digital transformation initiatives are using RPA or IA to a significant extent, as opposed to only 8% of organizations in the early stages and none of those that do not have digital transformation initiatives on their roadmaps. Conversely, 81% of organizations which do not have digital transformation initiatives on their roadmaps also do not have RPA or IA technologies on their roadmaps. There is a clear relationship between organizations that are digitally transformed/transforming and those that are pervasively implementing automation into their production environments.

Figure 3. Nearly Half of Digitally Mature Organizations Are Extensive Users of RPA

How would you describe your organization's progress in terms of automating routine business tasks through robotic process automation (RPA) and/or intelligent automation (IA) technologies? (Percent of respondents)

■ Mature (N=95)   ■ Early stages (N=491)   ■ Not on roadmap (N=32)

	Significant use – we are currently using many bots to automate tasks in a production environment	Limited use – we are currently using one or more bots to automate tasks in a production environment	In development – we have begun to develop one or more bots, but have not begun to implement them	Planning only – we are just starting to research RPA and IA technologies, and the specific applications for our business	Not applicable – RPA and IA are not on my organization's roadmap
Mature	49%	22%	8%	6%	14%
Early stages	8%	17%	31%	24%	19%
Not on roadmap			3%	16%	81%

Source: Enterprise Strategy Group

The Bigger Truth

The automation space is quickly ramping up as organizations look for ways to offset and improve existing or newly discovered inefficiencies in common business process workflows. And the benefits are clear: Automation can bring predictability and efficiency to business process execution by helping to eliminate bottlenecks and errors that are commonly caused by humans. This enables overburdened employees to focus on more strategic initiatives as opposed to mundane tasks. While RPA is positioned as a productivity enabler for humans, as it gets woven into more business process workflows, organizations should not lose sight of its long-term potential impact on strategic and creative human involvement.

As organizations continue to embrace the technology, they must also recognize that the market is far from mature. While the potential payoff is massive from a bottom-line standpoint, the use of RPA will likely reverberate across organizations. For those jumping into RPA, it is important to start small by applying automation to low-risk, high-value processes. They must establish key performance metrics to measure success. They need to involve the right people early and often, whether those are line-of-business leaders, developers, IT staff, or data analysts. And they would also be well advised to approach the positioning and implementation of RPA technology with both the business and its employees in mind.