



Accelerating the Impact of Robotic Process Automation

How citizen developers add breadth, depth, and velocity to RPA programs

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Executive Summary

With 47% growth in citizen automation programs over the past two years, automation programs that include citizen developers significantly accelerated the benefits of automation compared with center of excellence–only programs.

39% more employees were impacted by automation involving the combination of citizen developers and the center of excellence (COE), compared with COE alone. This led to **49% greater velocity** in broadening automation benefits across more employees, with **29% more processes touched**.

Respondents with citizen developers rated automation **27% higher in revenue benefits, 30% higher in expense reductions,** and **27% higher in quality improvement** compared with respondents without citizen automation support.

With **72% adoption of citizen automation programs overall**, COEs that do not utilize citizen developers are less impactful and less competitive.

Building or upgrading citizen automation programs requires planning with the COE, senior leaders, and HR. A meaningful pilot will uncover cultural issues that need to be addressed, refine program features and gauge the support among business leaders and managers.

47% GROWTH
IN CITIZEN
AUTOMATION
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YEARS

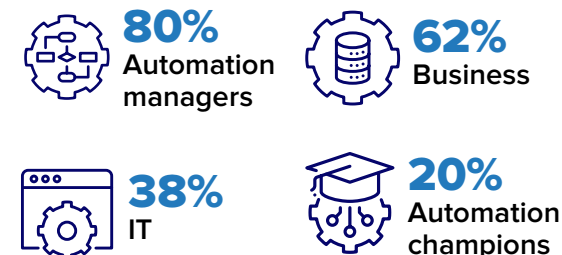
In This InfoBrief

In August 2022 IDC conducted a U.S. web-based survey (n=529) on behalf of PwC and UiPath to better understand citizen automation programs in North America and their impact on an enterprise's automation agenda. The survey identifies:

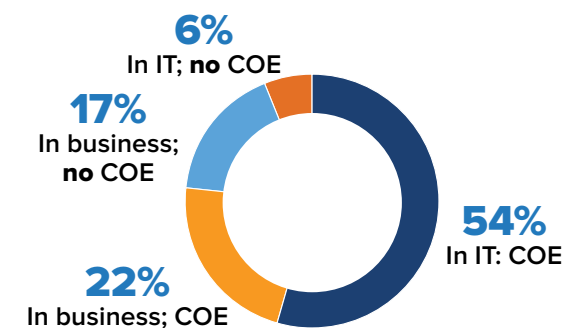
- ▶ The impact and value citizen automation programs achieve compared to organizations that do not offer these programs.
- ▶ How successful citizen developers are rewarded, how their careers advanced, how they spend their time, and their key challenges.
- ▶ What features are offered in citizen automation programs to train, support, and advance citizen developers.
- ▶ This InfoBrief will be useful to center of excellence (COE) teams interested in, planning to offer, or upgrading and expanding a citizen automation program.

Demographics & Definitions

- ▶ **Citizen developers** work in business units and are provided with access to low code tools and training to develop all or part of an automation, workflow or application.
- ▶ **Automation champions** work in business units and responded “Yes, I am considered an automation development champion/expert” to the survey question “Do you spend time as a citizen developer, using RPA to build automations?”
- ▶ **Automation managers** manage departments that utilize RPA or are in IT managing automation projects or familiar with RPA adoption.
 - Enterprise focused survey
 - n=529 Participants
 - United States region
 - 1,000+ employees
 - Balanced mix of industries



Q: How is RPA operated in your organization?



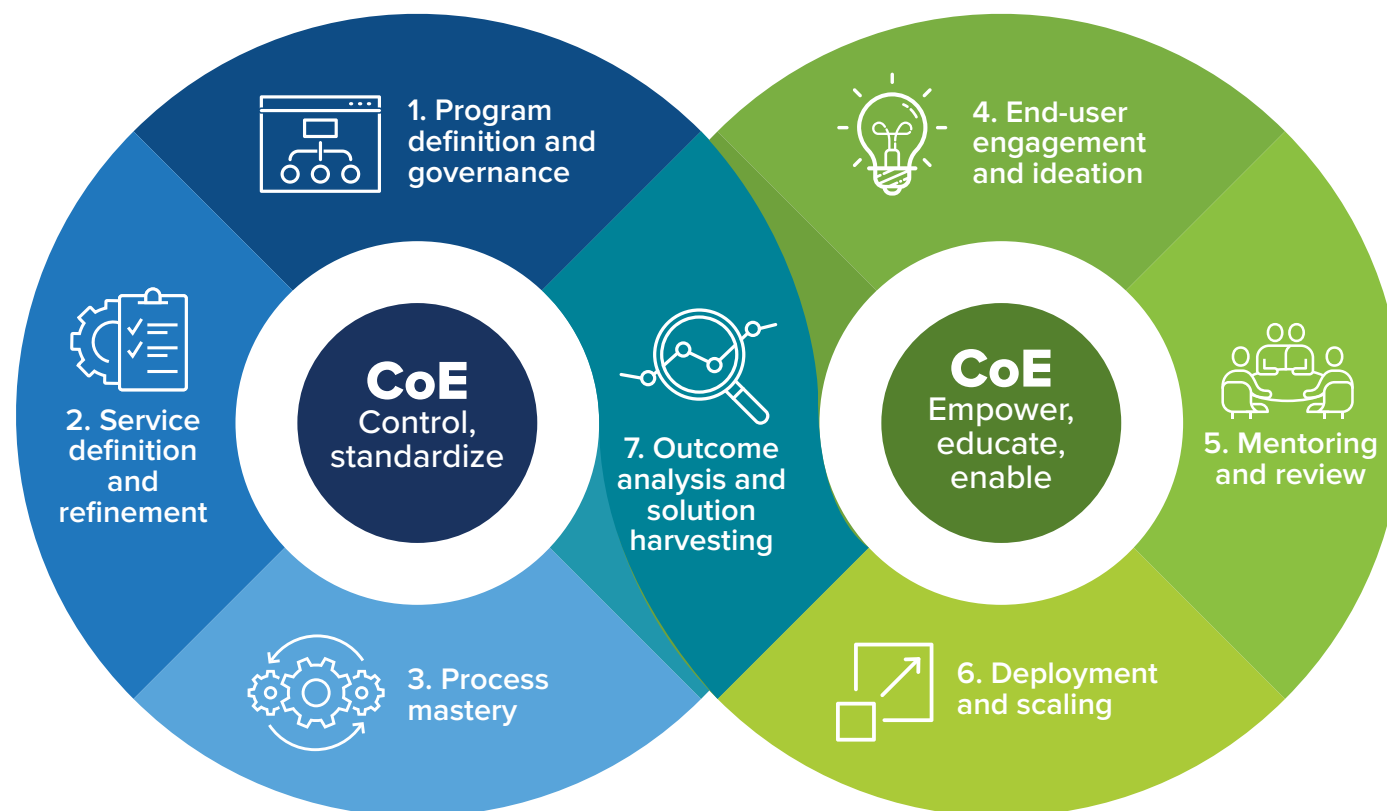
Source: IDC, 2022, n = 529

Goal of Citizen Automation Programs

The goal of a citizen automation program is to create development skills among workers in business units, enabling them to automate where they see opportunities.

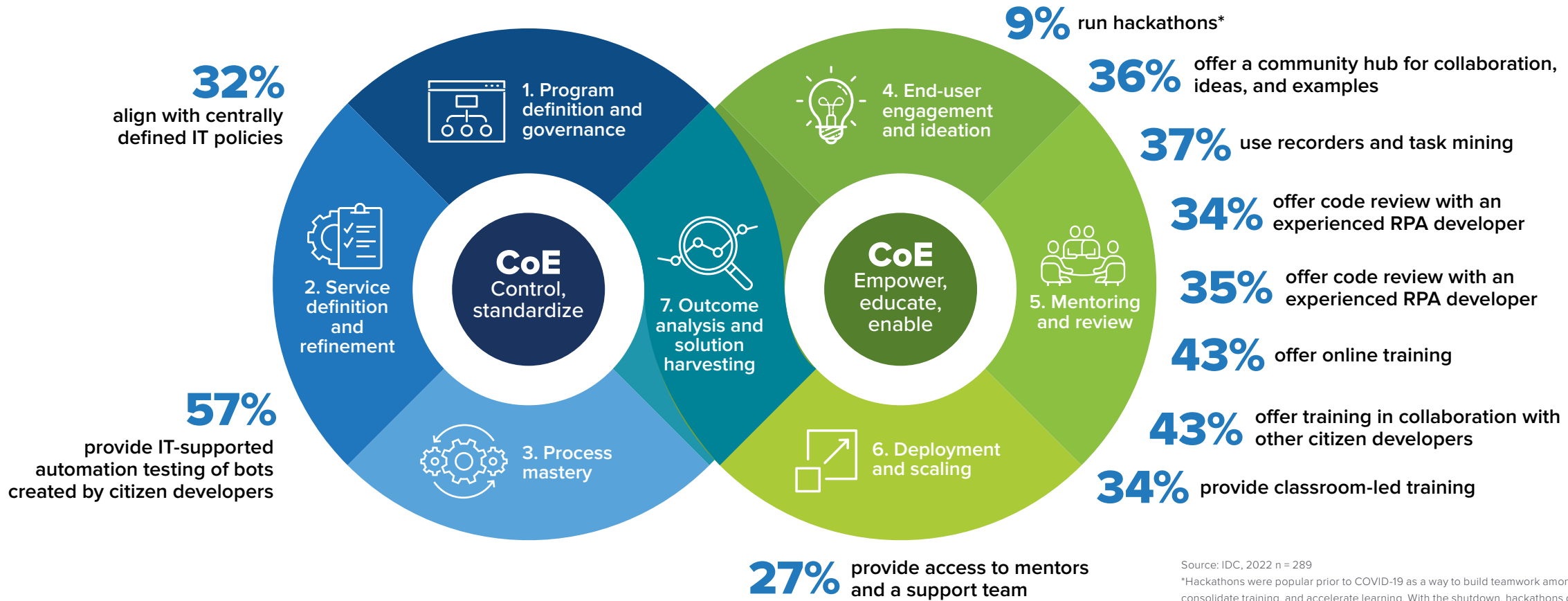
As the specialists in how they perform their jobs, citizen developers spot and fix inefficiencies themselves.

The COE role is extended to not only govern enablement and management of automation but also to extend services to empower, educate, and enable citizen developers to become successful.



“Spotify’s center of excellence produces robust, enterprise-led automations. Now, after upskilling their people in other functions, like accounting, Spotify has cultivated a pool of citizen developers who can build their own automations to streamline very specific tasks.” — **Sidney Madison Prescott, Global Intelligence Automation Leader, Spotify**

Citizen Developer Program Features



Source: IDC, 2022 n = 289

*Hackathons were popular prior to COVID-19 as a way to build teamwork among citizen developer recruits, consolidate training, and accelerate learning. With the shutdown, hackathons dropped off.

“We crowdsourced ideas from our people about identifying challenges and formulating solutions. Then we created a team focused on refining ideas that could be implemented for major changes quickly, including contract-to-cash and procure-to-pay.” — Kevin Kroen, Intelligent Automation Leader, PwC

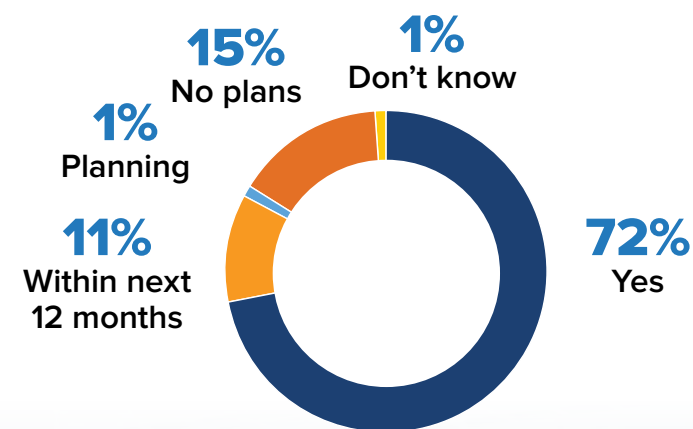
Citizen Automation Programs Are Ubiquitous

With 72% already adopting and 11% planning to adopt within a year, citizen automation programs are increasingly standard in COEs.

With successful programs, a fundamental change in the role of automation developer is taking place in North America as companies leverage the subject matter expertise of citizen developers to broaden and add depth.

As development rapidly becomes a cross-enterprise activity, restructuring and managing responsibilities requires a well-defined program.

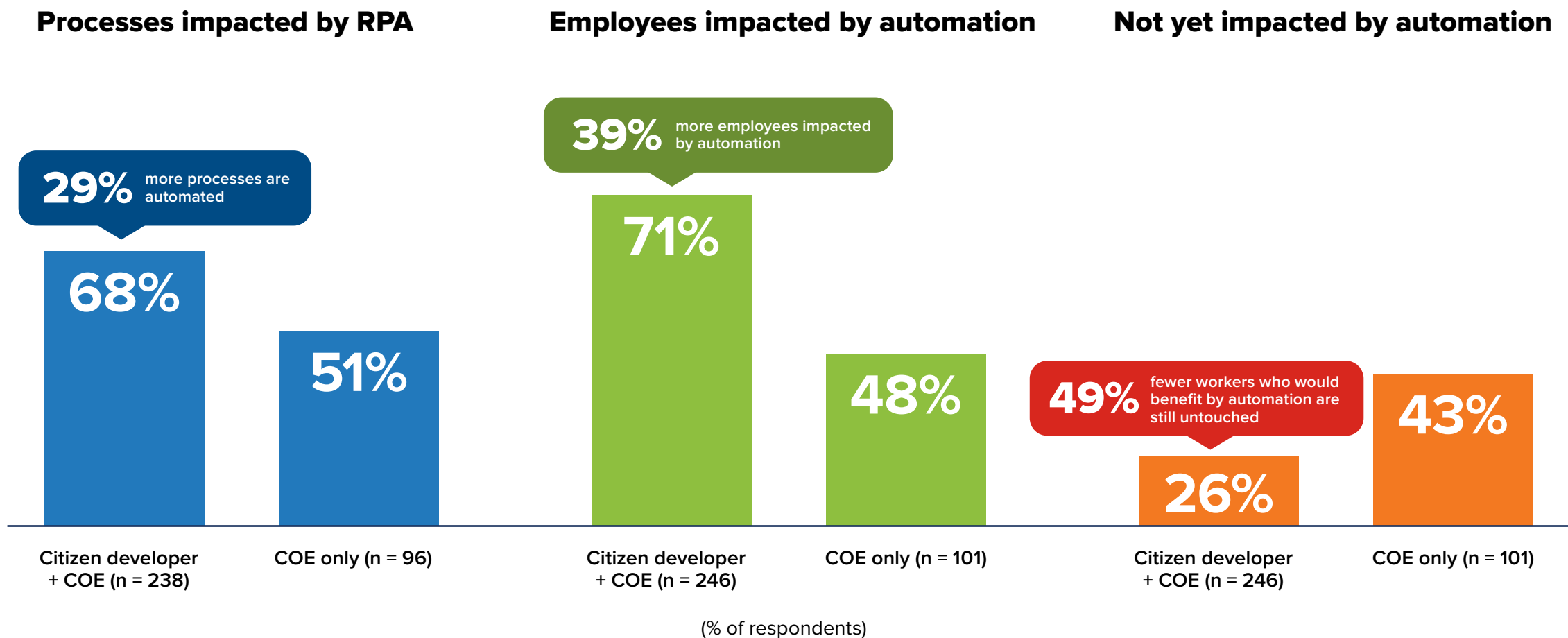
Q: Does your organization provide a citizen automation program?



Source: IDC, 2022, n = 529



Impact on Employees Greater with Combined Approach



Source: Citizen Automation Program Survey, IDC, August 2022

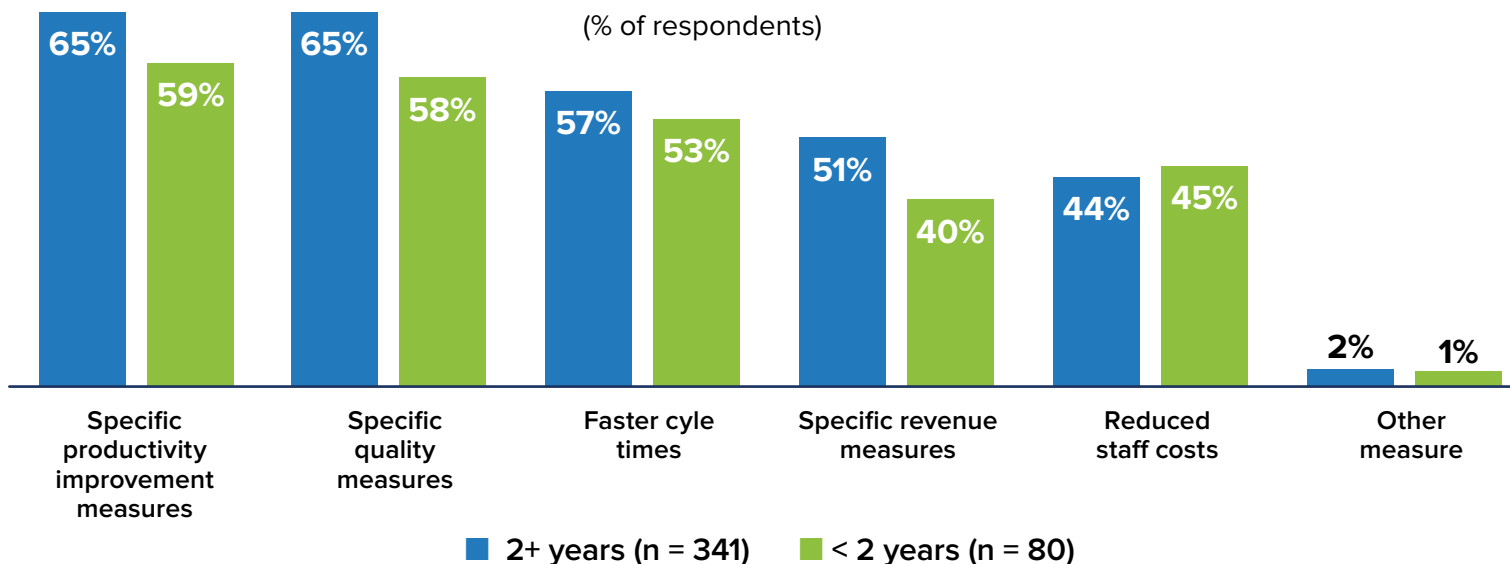
Measuring the Value of Automation

Managers responsible for employees impacted by automation look for more specific metrics to measure productivity improvement and quality.

Faster cycle times are also important.

Metrics are generally consistent between more mature and less mature automation adopters.

Q: What are the main metrics you use to track RPA progress or results?



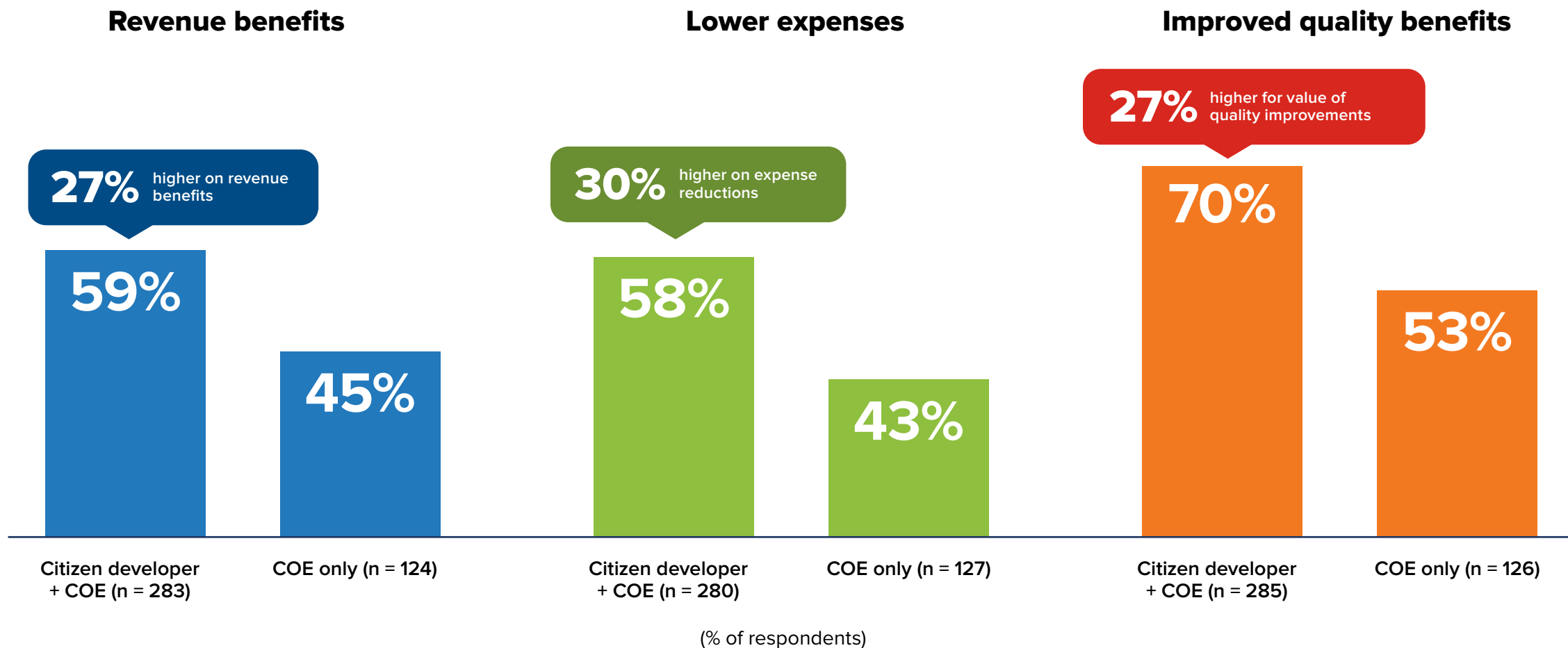
“We have been able to build out some pretty incredible data visualizations and dashboards to show how much time and business value we are giving back to the business.”

— **Sidney Madison Prescott, Global Intelligence Automation Leader, Spotify**

According to PwC, “PwC finance professionals learned how to build digital solutions that could automate repetitive tasks. They were able to take account reconciliation — which previously took weeks to perform manually — and automate it so it only took seconds.”

— **Kevin Kroen, Intelligent Automation Leader, PwC**

Business Benefits Rated More Highly with Combined Approach of COE and Citizen Developers



Upskilling Is More Common with Mature Automation Programs

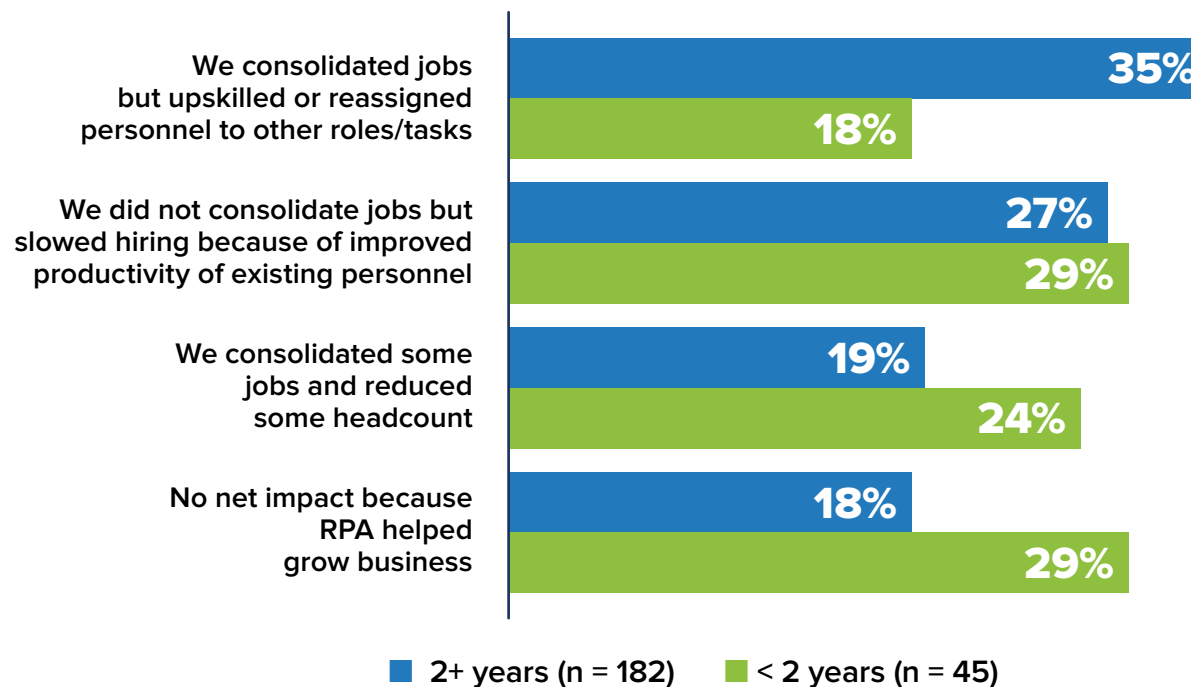
Respondents who adopted RPA for two or more years are more likely to upskill and reassign impacted employees to other roles or tasks.

This indicates more time is needed to determine how to upskill. It may also mean successful automation adoption creates an opportunity and more urgency to hire from within.

To avoid losing valuable talent to automation, newly established COEs, business unit leaders, and HR should work together immediately on plans to identify, upskill and reward existing employees.

RPA's impact to workforce

(% of respondents)

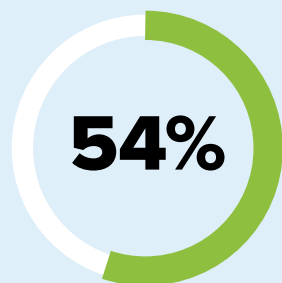


New Roles of Successful Citizen Developers

New roles created in the business include:



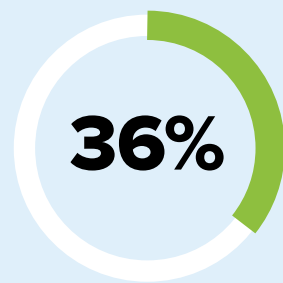
Coaching and mentoring



of respondents said their successful citizen developers may also move into the IT organization or COE.



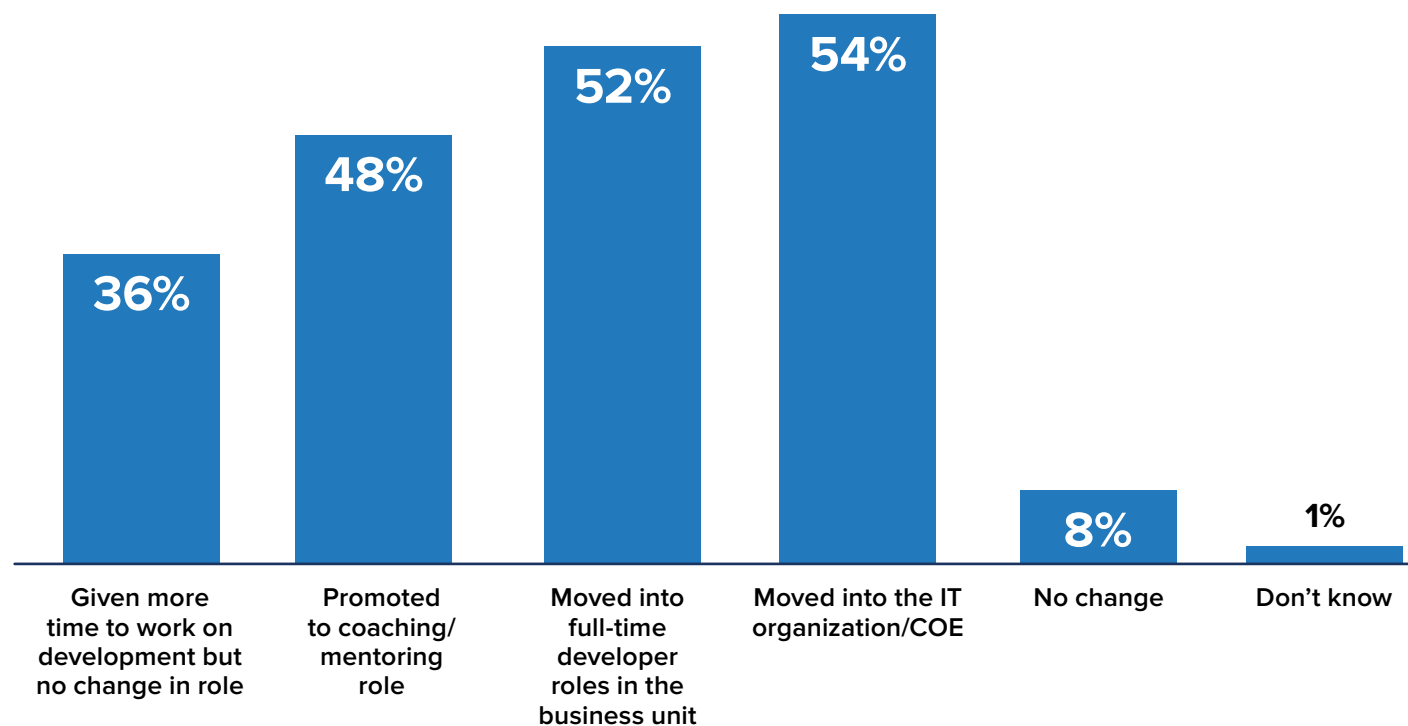
Full-time citizen developer



of respondents said their citizen developers were given more time to work on development, with no change in role.

Q. How were careers impacted for business users who were successful in learning how to use low-code development tools?

(% of respondents)



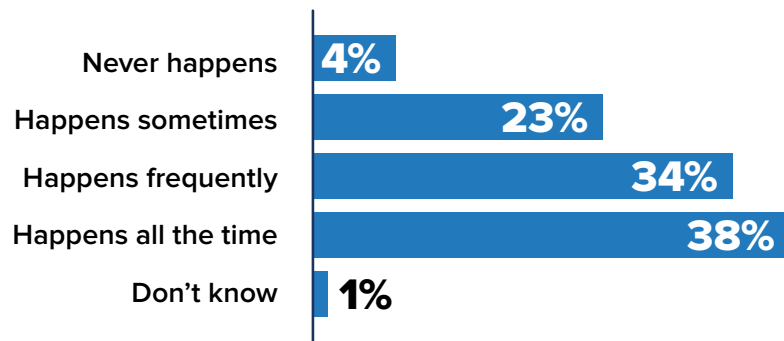
Source: IDC, 2022 n = 289

How Frequently Are New Roles Assigned to Successful Citizen Developers?

Business workers regularly take on developer responsibilities once they are successfully upskilled. They are also likely to take on a new, higher-value role.

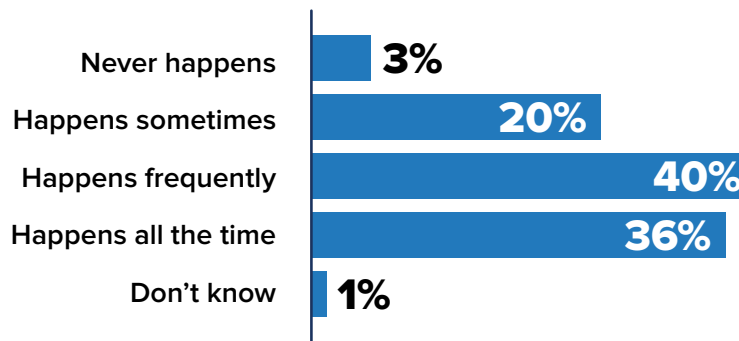
Regularly develop automations

(% of respondents)



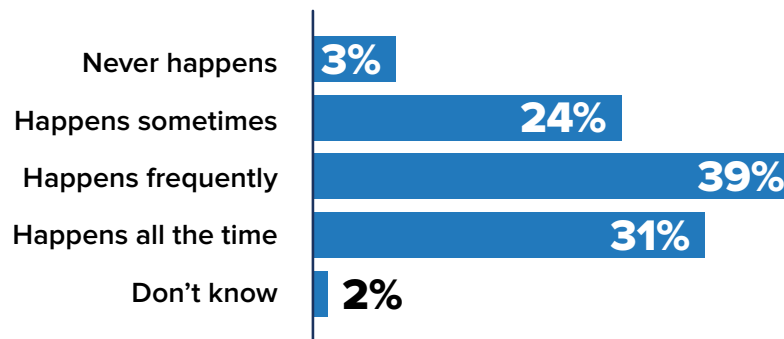
Upskilled to champions and mediators

(% of respondents)



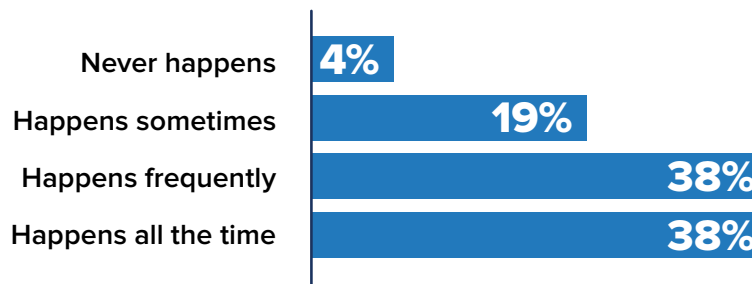
Task workers work full time on development

(% of respondents)



Move to higher-value roles in organization

(% of respondents)

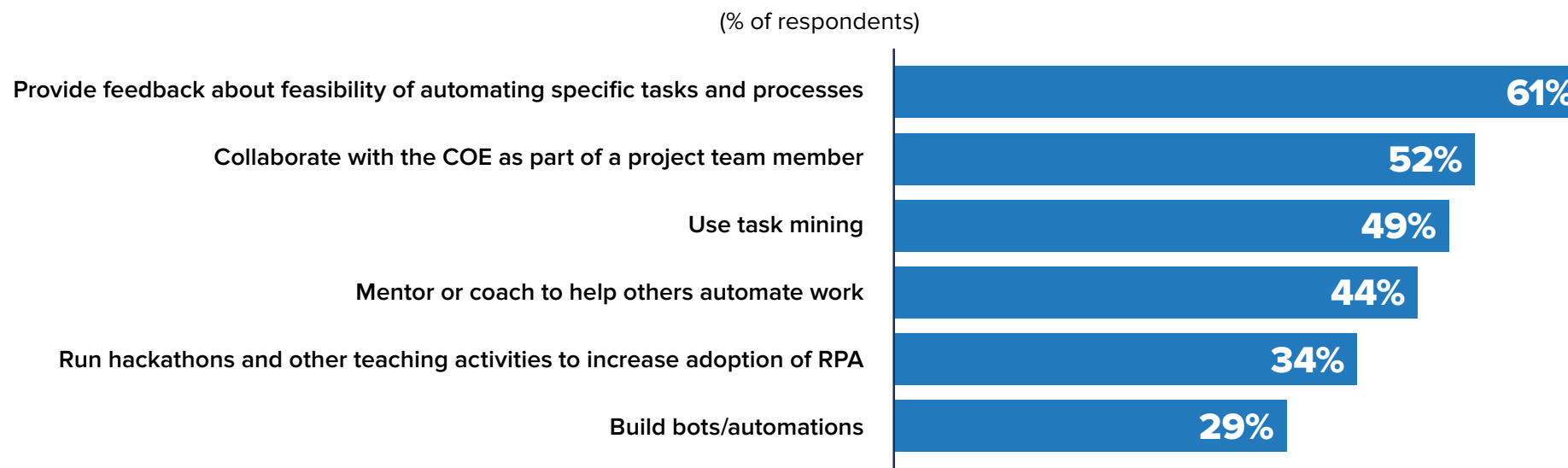


Source: IDC, 2022 n = 289

Opportunities for Successful Citizen Developers

As citizen developers, automation champions work part-time on automation projects, collaborate with the COE team on projects, coach and support educational activities.

Q. What automation-related activities are you involved with as a citizen developer?



Source: IDC, 2022 n = 108

On average, automation champions spend **31% of their time on automation projects** across a variety of activities.

How Are Successful Citizen Developers Rewarded?

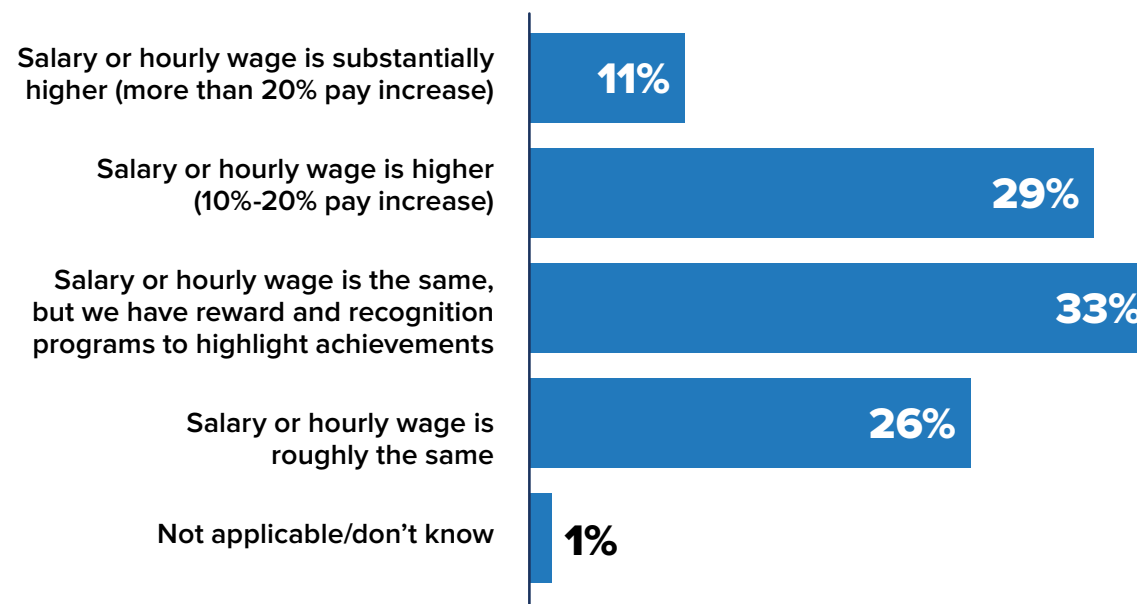
40% of respondents pay higher salaries for success

In lieu of higher pay, 33% reward and recognize their citizen developers.

Because upskilling is a major part of success, companies should plan for higher salaries, bonuses, or other rewards so successful citizen developers do not leave for higher pay elsewhere.

Q. How do the salaries of workers who successfully learned how to build automations compare with their salaries before the technical training and upskilling?

(% of respondents)



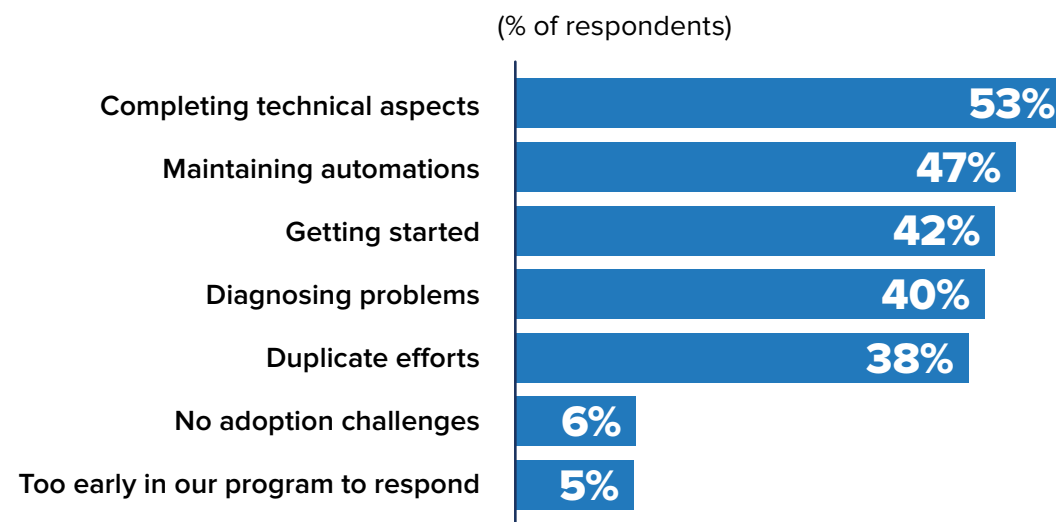
Source: IDC, 2022 n = 289

Overcoming Key Challenges

Automation programs are not addressing the obstacles citizen developers face.

- ▶ Technical aspects were top challenges for citizen developers, yet only one-third of the programs offered mentoring and code review.
- ▶ Getting started was also a top challenge, and hackathons were only offered by 9% of the respondents.
- ▶ The most adopted features were indirect, including online training and a collaboration hub.

Q. What adoption challenges have you faced in enabling business users or teams to do their own development?



As citizen developers learn how to develop, consider:

- ▶ Adopting task mining to visualize tasks and efficiency statistics to identify automation opportunities.
- ▶ Offering direct interfaces between mentors and skilled developers to overcome hurdles.
- ▶ Fostering team building and learning with special activities such as hackathons.

Source: IDC, 2022 n = 289

Essential Guidance

With 72% of automation adopters gaining significant benefit from citizen developer participation, enterprises without citizen developers or without a strong program are at a competitive disadvantage. Building and improving citizen automation programs requires careful planning.

- ▶ **Management buy-in is required.** Citizen developer participants need time to learn and spend on development.
- ▶ **Figure out upskilling, roles, and rewards.** A well-featured upskilling and support program for workers to successfully become citizen developers is required. Without proper consideration for recognition and rewards, a program is at risk of citizen developer turnover.
- ▶ **Determine where new roles are managed.** Mentoring, coaching, task mining, and test automation are examples of four areas where the function is managed either in the business or in the COE depending on choices made in planning or by evolving practices.
- ▶ **Determine succession planning for automation life cycles.** As citizen developers take on new business roles, responsibility for automations in production needs to turn over to a successor in the business or revert to the COE.
- ▶ **Start with a meaningful pilot.** Pilots help uncover cultural issues, provide a better understanding of techniques to help citizen developers acquire skills and COE competencies, and gauge support among business leaders and managers.

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ARE GAINING
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FROM CITIZEN
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About the Analyst



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Maureen Fleming is Program Vice President for IDC's Intelligent Process Automation research. In this role, she focuses on a portfolio of technologies used by enterprises to speed up, drive cost out of, and support a customer-centric approach to business operations. She especially focuses on the convergence of AI, machine learning, and automation and how that combination changes the economics and benefits of process improvement.

[More about Maureen Fleming](#)

Message from the Sponsor

Upskilling can help organizations unlock their return on RPA and intelligent automations investments by enabling them to build the workforce of tomorrow, today. PwC can help you build the RPA citizen developer programs you need at scale. UiPath's enterprise platform, combined with PwC's digital transformation experience, upskilling technology, and global market reach, can help move businesses forward. Through a robust portfolio of automation solutions that can provide immediate impact for the enterprise, **PwC and UiPath** together deliver sustained business outcomes for your organization.

Learn more about how upskilling can help accelerate your organization's digital transformation by empowering your people with automation skills that grow careers — and your business.

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