

The State of **Application Development**

Is IT Ready for Disruption?

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Summary

In its sixth year, the OutSystems State of Application Development Report provides a comprehensive analysis of the challenges, priorities, and innovations faced by IT teams around the globe, at a time when organizational agility has never been so important.

Agility is the central theme of this year's report because businesses and their IT organizations face a multitude of disruptive forces in 2019. The threat of digital disruption and the consequent need for digital transformation has been a driver of IT strategy for years. Add to that the current uncertain global economic outlook, and it becomes obvious why business leaders are so concerned about agility today.

How will IT "step up to the plate" and ensure that their organizations have the speed and adaptability to thrive, despite uncertainty?

This context serves as the backdrop to our sixth annual survey of IT professionals as we seek to understand the state of application development better. We set out with five critical questions in mind:

- 1 How are organizations' app dev practices evolving to meet digital transformation and agility objectives?
- 2 What are the main challenges to meeting application development goals?
- 3 What strategies are IT teams employing to speed up application delivery?
- 4 Are these strategies working to overcome resource constraints and reduce backlogs?
- 5 Are new app dev practices such as low-code and citizen development making a difference?

Our research, conducted in March 2019, took us around the world, connecting us with more than 3,300 IT professionals in all kinds of industries. In this concise summary of the report, we focus on specific findings related to the **banking and financial services sector**.

You can access the full 44-page report [here](#).

Color Key:



Global Responses



Banking and Financial Services Sector Responses

The Arms Race for Digital Consumer Engagement

The world's top 1,000 retail banks spent \$124 billion on IT in 2018.¹ On average, the top 100 of these banks spent 26 times more than each of the 900 banks that followed. Such inequality seems likely to help big banks get even bigger, as their digital capabilities pull ahead of smaller competitors.

However, these expenditures don't make them anymore immune from disruption than regional banks. Digital banking experiences that customers love are in short supply from regional banks and big banks alike. No matter their size, banks will need to provide superior customer experience and more personalized finance propositions to keep their customers loyal. This accounts for the burgeoning demand for application development revealed in this year's survey.

Delivering results can be frustratingly slow, particularly for mature businesses that have many burdens such as:

- Stringent regulatory compliance requirements
- Complex, disjointed legacy IT
- Siloed, channel-focused development that means duplicative effort to release even minor changes to market.

Incumbents, Challengers, and FinTech

The delivery of new digital propositions can slow to a crawl as incumbents drag their legacy system burdens behind them while at the same time testing and validating development against multiple compliance, risk, and security requirements. No wonder many banks look enviously at new challengers who are not yet weighed down by aging core systems.

In search of an escape from these shackles, many banks and financial services firms are investing in FinTech incubators or accelerators. Such cooperation not only brings fresh thinking to the party, but it also encourages a more agile, lean startup mindset to technology development that is hard for core IT departments to inculcate.

How Can Banking IT Get an Agility Boost?

If banks want to become really "customer-obsessed," confining innovation to separate teams or incubators is not sufficient. Instead, the entire IT organization needs to rebalance, so that more time is devoted to innovation and less time gets consumed by engineering and maintenance of complex legacy systems.

Elimination of siloed, duplicative development needs to be part of that rebalancing. Modern approaches such as low-code application development platforms can help in that process. They enable multi-disciplinary teams to move at pace, maximize reuse, and more successfully adopt a customer-centric rather than product-centric mindset.


The findings of this year's "State of Application Development" research report provide valuable signals for how banks can achieve such a rebalance and obtain an agility advantage.


Understanding and acting on the key findings in this report is crucial, not just for CIOs, but also to all others who want to accelerate digital innovation and transform the customer experience.

1. Ovum Informa 2018 ICT spending predictions for the banking sector.


Key Findings

Digital Transformation Is a Work in Progress


 Evaluating their progress with digital transformation on a six-point scale, on average, respondents awarded their organizations a score of 3.74, meaning digital transformation efforts are typically widespread but not yet strategic or continuous.

 On average, banking and financial services respondents scored their digital transformation maturity as 3.9, slightly above the mean, but lagging behind higher performing industries including utilities, software, telecommunications, Internet, technology, and computers.

Stock market volatility was the least of their concerns. Even so, 51% thought this was likely or very likely to disrupt their organization in the year ahead.

 Banking and financial services respondents ranked their four top disruptive fears as follows: disruptive regulatory change, digital disruption from new competitors, digital disruption from established competitors, disruptive cyber attack. As shown in Fig. 1, over 80% of respondents thought these risks likely or somewhat likely to impact the business in 2019.

Disruption Is a Rising Concern

 Uncertainty and disruptive threats appear to be on the rise. Asked to evaluate potential risks, senior respondents ranked changes in customer preference or behavior as their number one risk factor, closely followed by regulatory change, cyber-attack, and more nimble competitors.

Although changes in customer preference or behavior and stock market volatility were lower down the risk rankings, more than half of the respondents thought these were either likely or somewhat likely to have an impact on business in the year ahead.

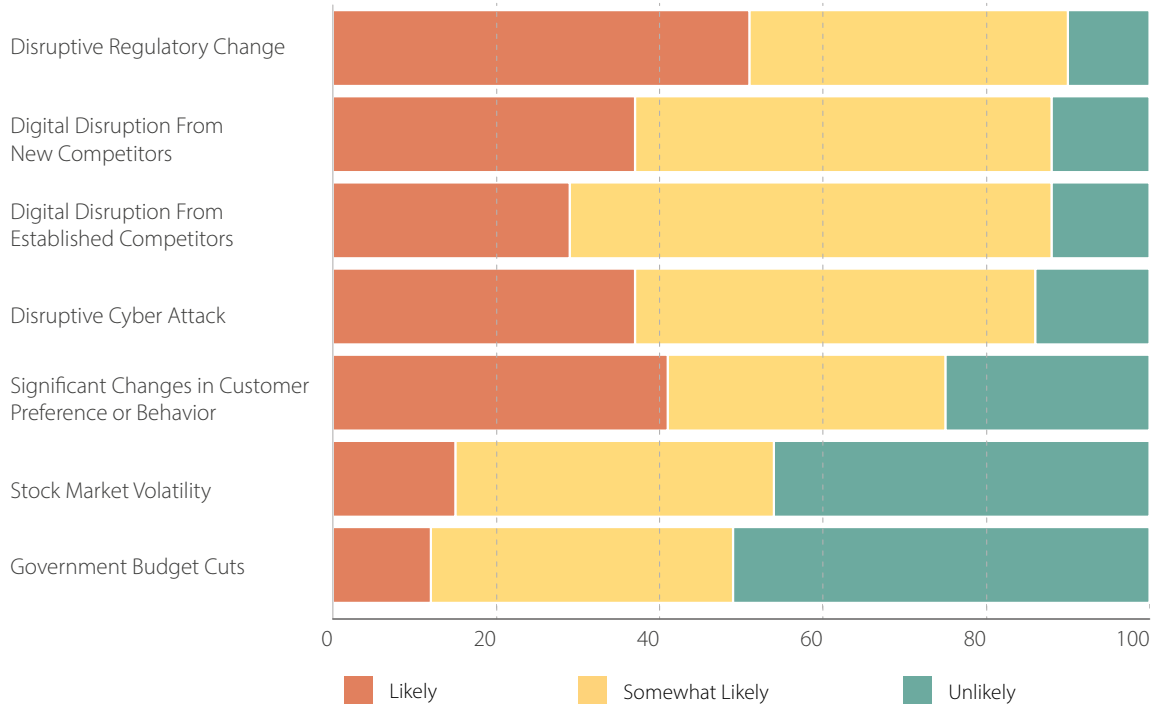



Fig. 1: Disruptive Fears in Banking and Financial Services


Source: State of Application Development 2019/2020. OutSystems ©


Demand for App Dev at All-Time High

 The number of applications respondents have slated for delivery in 2019 is 60% higher than last year's assessment. Focusing on organizations with more than 500 employees, 65% of IT professionals said they had plans to deliver 10 or more apps, 38% plan to build 25 or more apps, and 15% said they plan to develop 100 or more apps in 2019.


 Banking and financial services respondents also plan to deliver more apps in 2019 compared to last year. Focusing on organizations with more than 500 employees, 69% of IT professionals said they had plans to deliver 10 or more apps; 39% plan to build 25 or more. However, fewer said that they planned to deliver more than 50 apps in 2019, making the overall target around 12% lower compared to the average across all industries.


Development Time is Faster—But Not for All

 Last year, 54% of respondents said the average time to deliver a web application was four months or less. This year, that figure has risen to 61%. Mobile app development is little changed since last year, with, on average, just 55% saying that they deliver apps in 4 months or less.

 Banking and financial services respondents reported slower development times compared to the global average. Only 50% claim that they deliver web applications in 4 months or less. Development time for mobile apps was slower still, with just 48% saying that they typically deliver mobile apps in 4 months or less. Given the burden of legacy IT and the stringent demands of compliance and security, it is perhaps little wonder that banking organizations move at a slower pace.

Backlogs Remain Stubbornly Long

 Sixty-four percent of IT professionals said they have an app dev backlog, and for 19% of these respondents, the backlog was more than 10 apps. Only 39% said their app dev backlog had improved in the last year, and 50% say it's about the same.

 The picture is worse according to banking and financial services respondents, 73% of whom complained of backlogs, although only 18% said their backlog was more than 10 apps. Just 40% of banking and financial services respondents said that the backlog improved in the past year.

Development Skills Are in Short Supply



The vast majority of responding organizations have hired multiple app dev roles in the past year. Only 15% of respondents described such recruitment as easy, and for many specialties, recruitment was described as hard or very hard. Despite such recruitment, only 36% of organizations have larger app dev teams than a year ago. So, for many organizations, retention of developer talent appears to be an equally grave challenge.



Forty-two percent of banking and financial services respondents said their application development teams had grown in the past year. Compared to the global results, banks and financial services employers appear to enjoy more pulling power, as proportionately fewer described recruitment as difficult or very difficult.

Nevertheless, as shown in Fig. 2, over 60% of banking and financial services respondents described hiring as difficult or very difficult for AI/ML specialists, cybersecurity specialists, and full-stack developers.

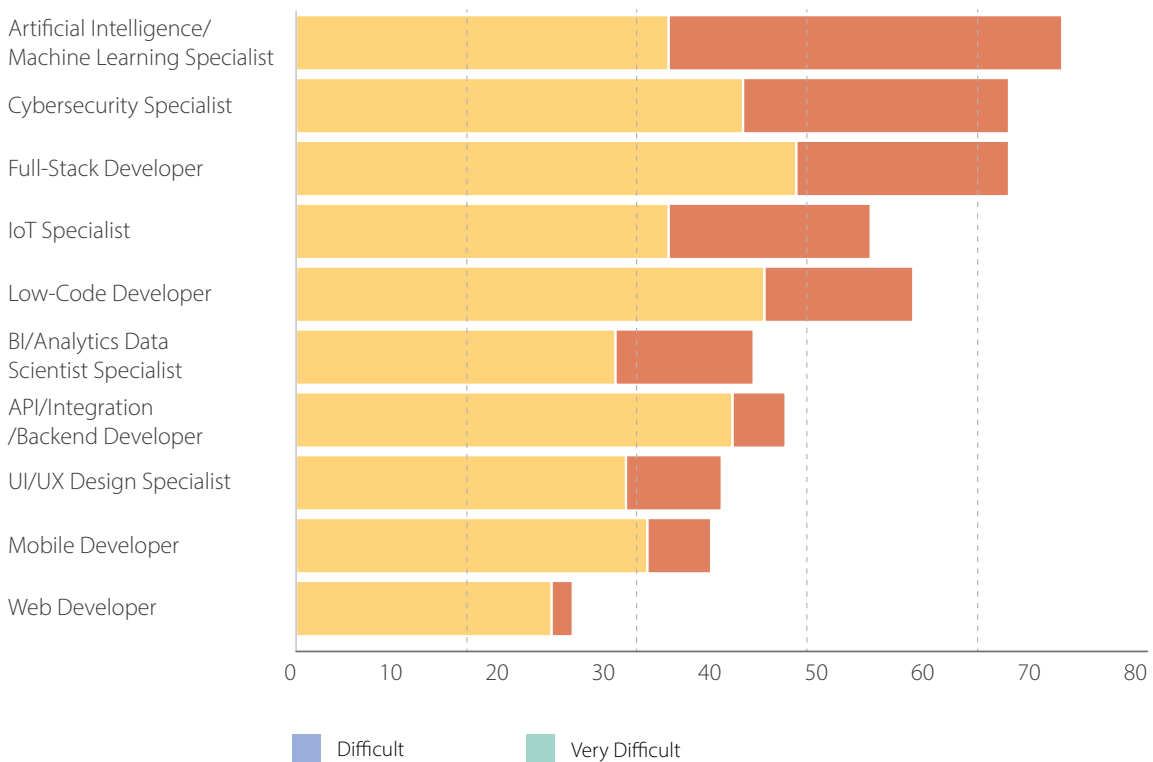


Fig. 2: App Dev Hiring Challenges - Banking and Financial Services

Source: State of Application Development 2019/2020. OutSystems ©

Agile and Other Customer-Centric Practices Are on the Rise



Most organizations have invested in customer-centric practices in the past year, including agile (60%), design thinking (30%), customer journey mapping (20%), and lean UX (11%). Despite these efforts, agile maturity is still lacking in many organizations, the average assessment being somewhere between “just started” and “well defined.”



Banking and financial services respondents said their organizations had invested even more in customer-centric development practices in the past year—customer journey mapping (18%), design thinking/design sprint (33%), and agile (67%).

Despite this, respondents in banking and financial services organizations reported a lower level of agile maturity at 2.60 compared to the overall mean of 2.74. The ranking of all industries compared to mean is shown in Fig. 3.

In the survey, level 2 and level 3 agile maturity were defined as follows:

- **Level 2** - Just Started: Processes not fully defined. Basic level of agile adoption. Development and testing are not fully in sync yet.
- **Level 3** - Our whole team is using well-defined agile processes, and we're consistently delivering sprint after sprint.

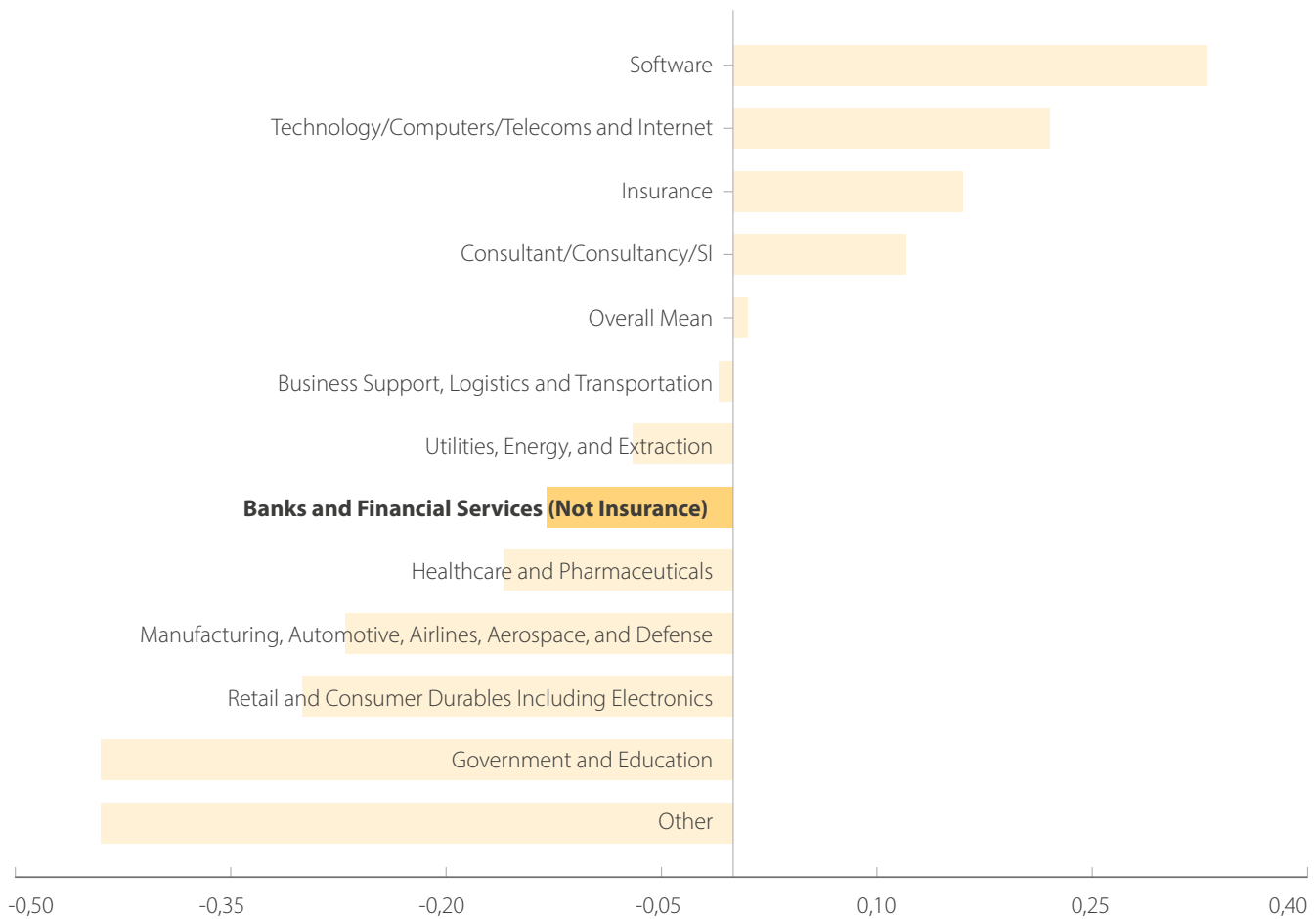


Fig. 3: Industry Variance from Global Mean Agile Maturity Score

Source: State of Application Development 2019/2020. OutSystems ©

Low-Code Is Mainstream



Forty-one percent of respondents said their organization was already using a low-code platform, and a further 10% said they were about to start using one. This correlates closely with the adoption forecast provided in last year's report, in which we found 34% of respondents using low-code, and another 9% saying they were about to start.



Low-code adoption appears to be significantly lower in banking and financial services firms. Just 34% of

respondents said that their organization was already using a low-code platform, and a further 11% said that their organization was about to start. Even so, adoption of low-code in the banking and financial services sector seems to be around one year behind the overall survey pool.

Given the lagging performance reported by banking respondents for agile maturity, delivery speed, and backlogs, readers from this industry whose firms are not using low-code should pay close attention to the benefits reported in the next section of this report.

Users of Low-Code Are Getting Significant Benefits

We compared the performance of those using and not using low-code and found notable differences across a wide number of app dev performance measures. It seems that the use of low-code is delivering significant benefits for those who have adopted it. Several of these performance comparisons are summarized below.

Digital Transformation Maturity

Low-code users had a 16% higher self-assessment score for digital transformation maturity compared to those not using low-code.

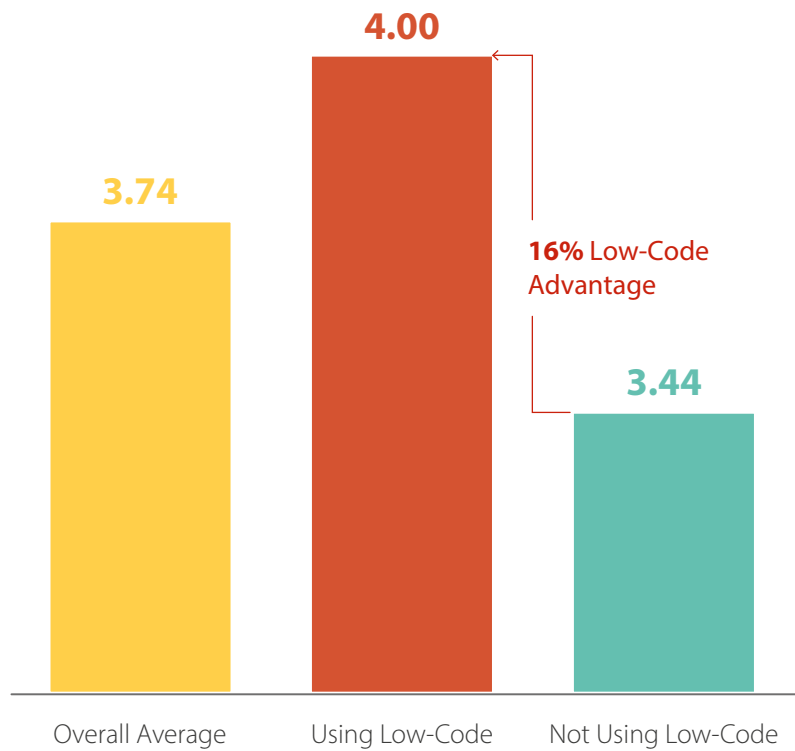


Fig. 4: Digital Transformation Maturity Advantage for Low-Code Users

Source: State of Application Development 2019/2020. OutSystems ©

The Proportion of App Dev Devoted to Innovation

Low-code users said that more of their app dev effort was devoted to innovation instead of maintenance, outperforming those not using low-code by 5%.

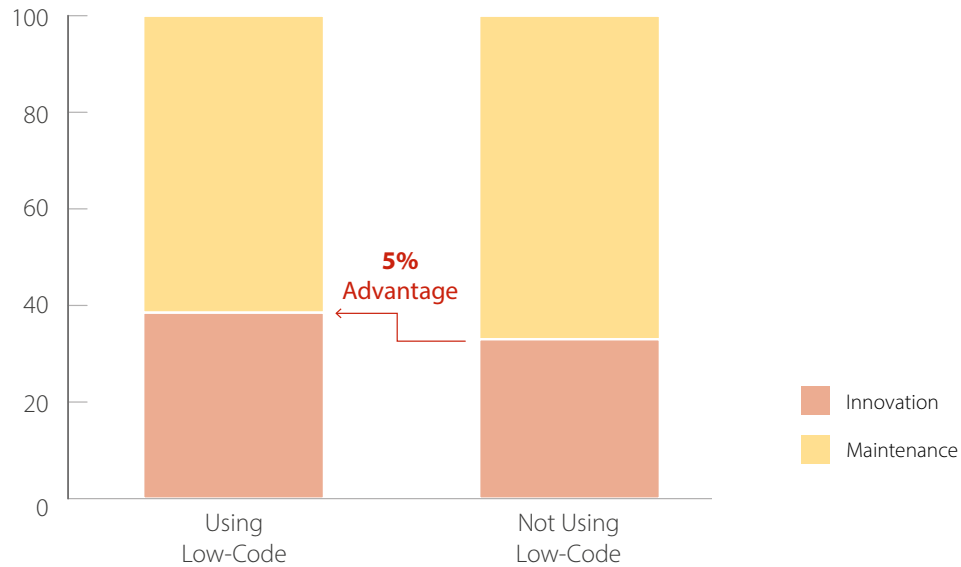


Fig. 5: Innovation vs. Maintenance - Low-Code Users' Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Software Release Cadence

Users of low-code said that they release new software versions more frequently, being nearly 7% more likely than those not using low-code to release monthly or more frequently.

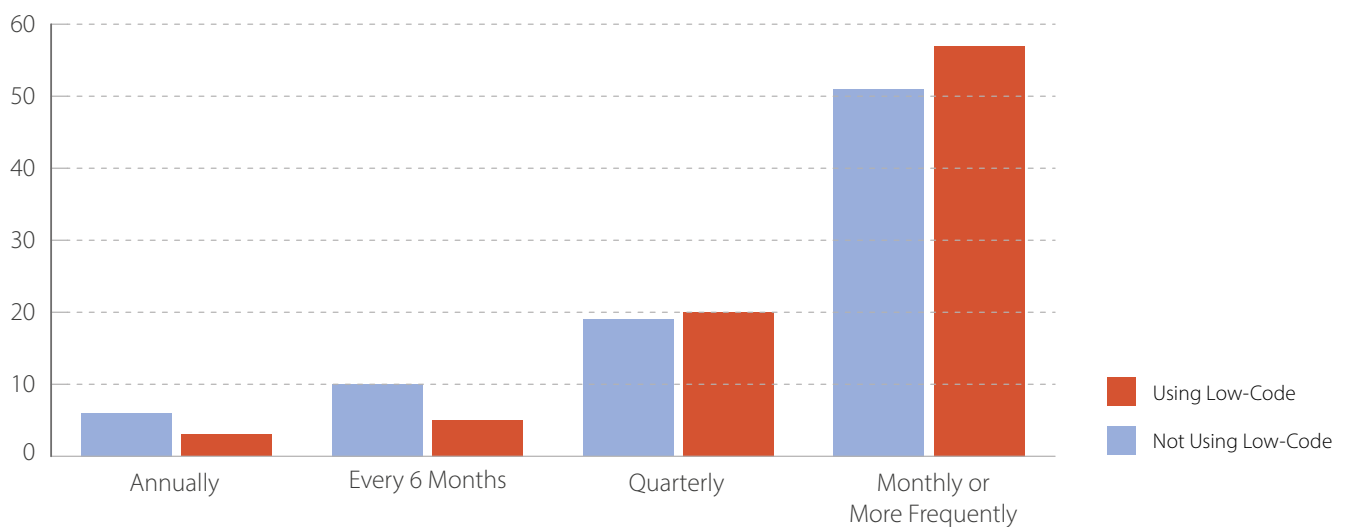


Fig. 6: Release Cadence: Low-Code Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Business Satisfaction With Software Release Frequency

Thirty-seven percent of low-code users described their business as satisfied with their frequency of software release, compared to just 26% of those not using low-code.



Source: State of Application Development 2019/2020. OutSystems ©

Fig. 7: Business Satisfaction With Release Cadence - Low-Code Users' Advantage

Organizational Agility

Low-code users had an 8% higher organizational agility self-assessment score compared to those not using low-code.

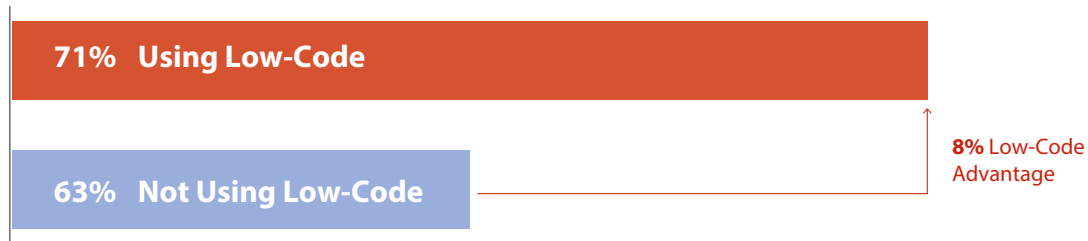


Fig. 8: Organizational Agility Advantage for Low-Code Users

Source: State of Application Development 2019/2020. OutSystems ©

Agile Maturity

Low-code users were 20% more likely to rate their agile maturity as level 3, 4, or 5 compared to those not using low-code.

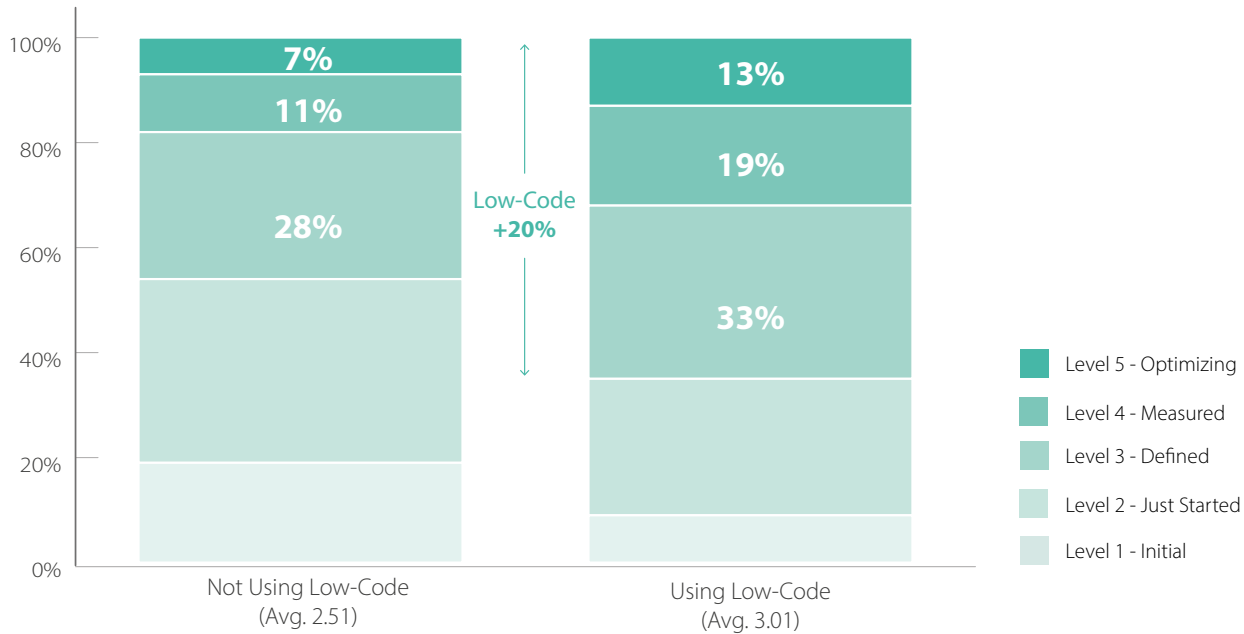


Fig. 9: Agile Maturity Score - Low-Code Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Backlog

Low-code users were 12% more likely to say that their backlog had improved in the past year, compared to those not using low-code.

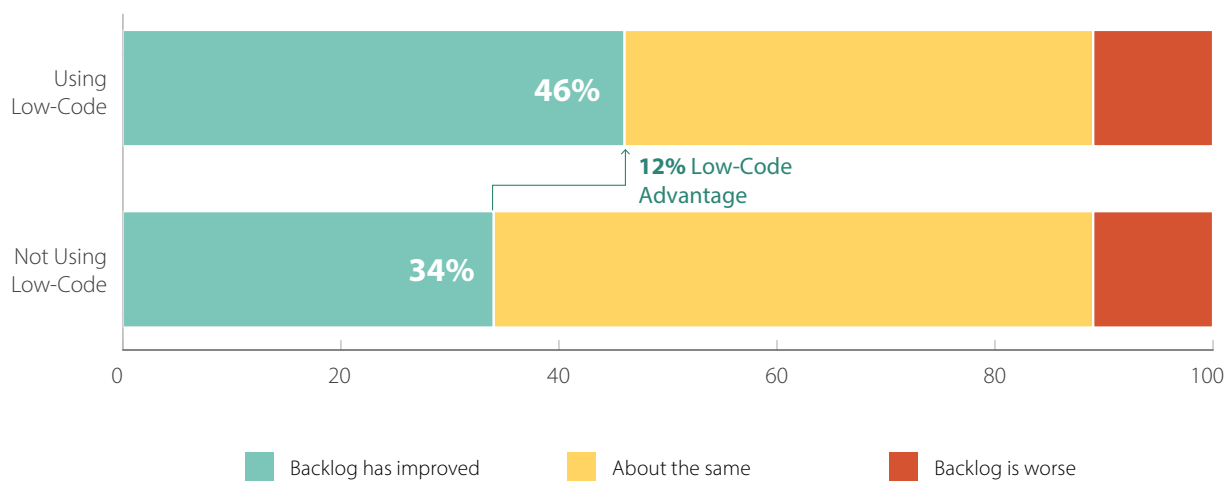


Fig. 10: App Dev Backlog Improved – Low-Code Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Web Application Development Speed

Low-code users were 11% more likely to deliver web applications in 4 months or less compared to those not using low-code.

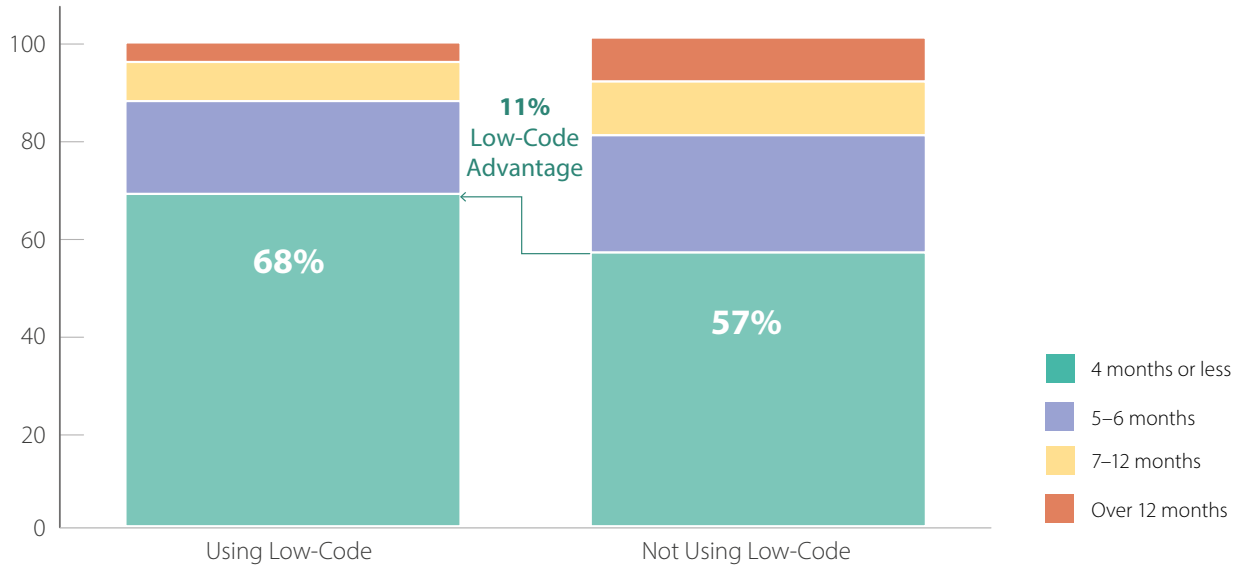


Fig. 11: Web App Development Time - Low-Code Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Mobile Application Development Speed

Low-code users were 15% more likely to deliver mobile applications in 4 months or less compared to those not using low-code.

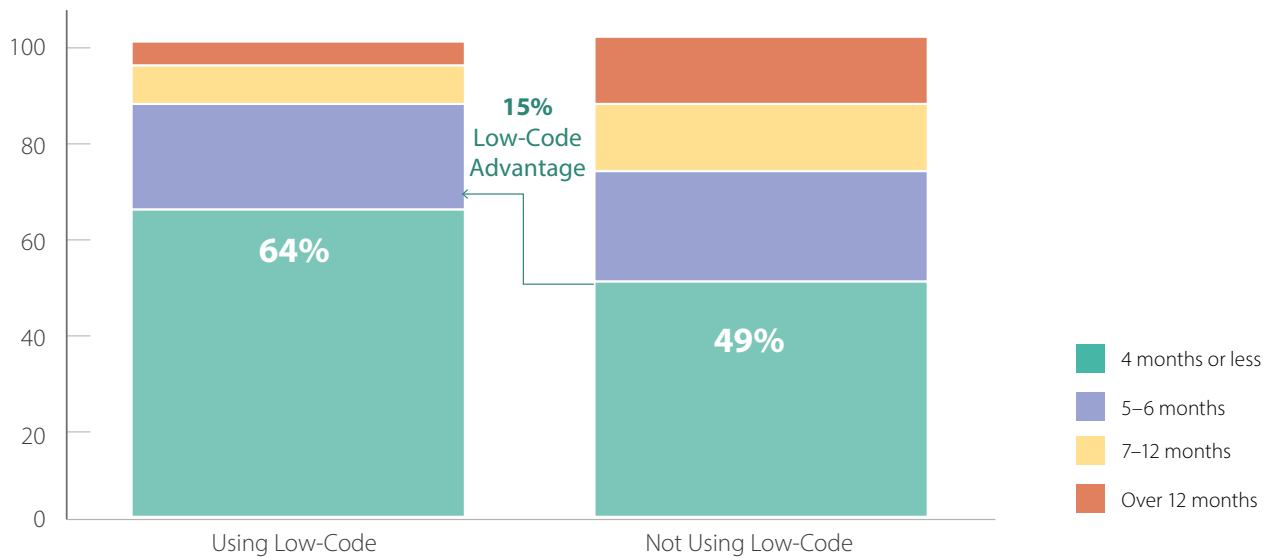


Fig. 12: Mobile App Development Time - Low-Code Advantage

Source: State of Application Development 2019/2020. OutSystems ©

Governance of Citizen Developers – Low-Code Advantage

Low-code users appear to have more success at governing citizen development in their organization compared to those not using low-code.

In summary—

37% Thirty-seven percent of low-code users described significant success at governing such development, a 9% advantage compared to organizations not using low-code.

35% Thirty-five percent of respondents whose organizations were not using low-code described ineffective governance of such users who could pose a risk to their organization. By comparison, users of low-code exhibited an 11% advantage.

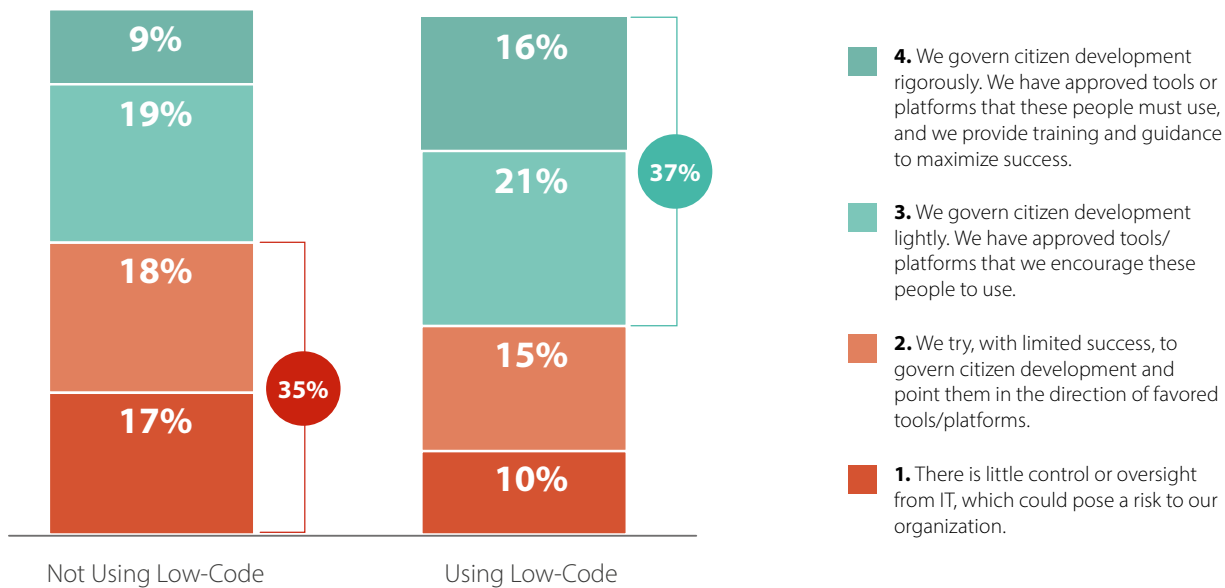


Fig. 13: Degree of Governance of Citizen Development

Source: State of Application Development 2019/2020. OutSystems ©

Survey Demographics

The survey was promoted primarily to IT professionals who were not OutSystems customers to ensure we surveyed a broad cross-section of organizations and not just OutSystems fans. To achieve this, we turned to third-party media.

Roles

Respondents were developers, CIOs, IT managers, and other professionals, representing thousands of companies from around the world who agreed to share objective feedback based on their experiences.

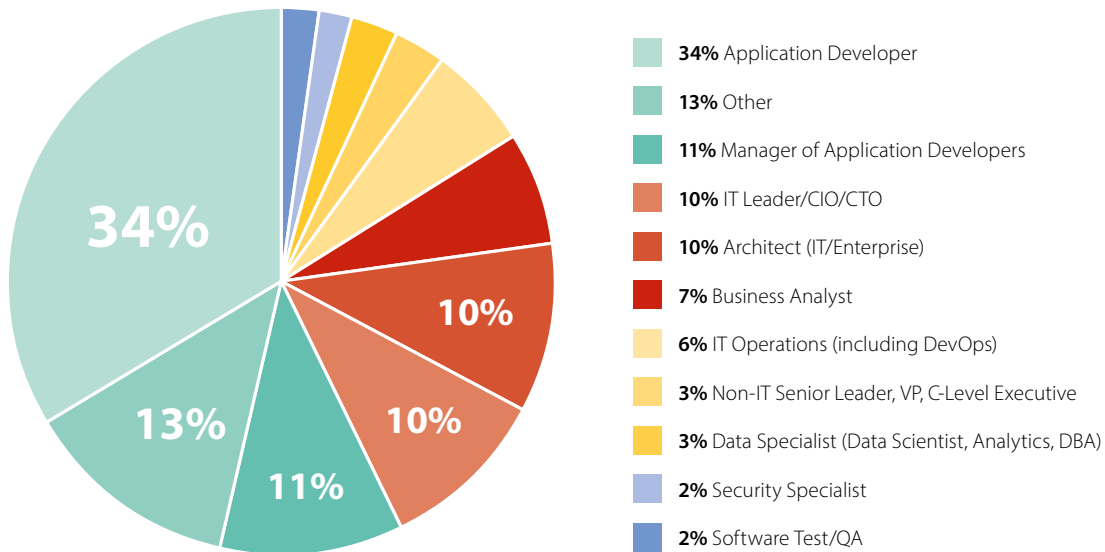


Fig. 14 Primary Job Function

Source: State of Application Development 2019/2020. OutSystems ©

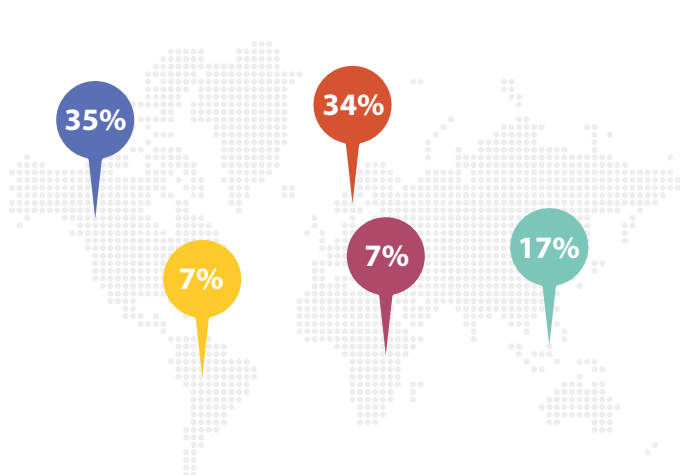
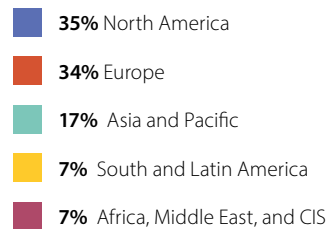


Fig. 15: Geography

Geography

Thirty-five percent of responses came from North America. Roughly 70% of the respondents' organizations have headquarters in either Europe or North America, 17% in Asia and the Pacific, and the remainder spread across the rest of the world.



Source: State of Application Development 2019/2020. OutSystems ©

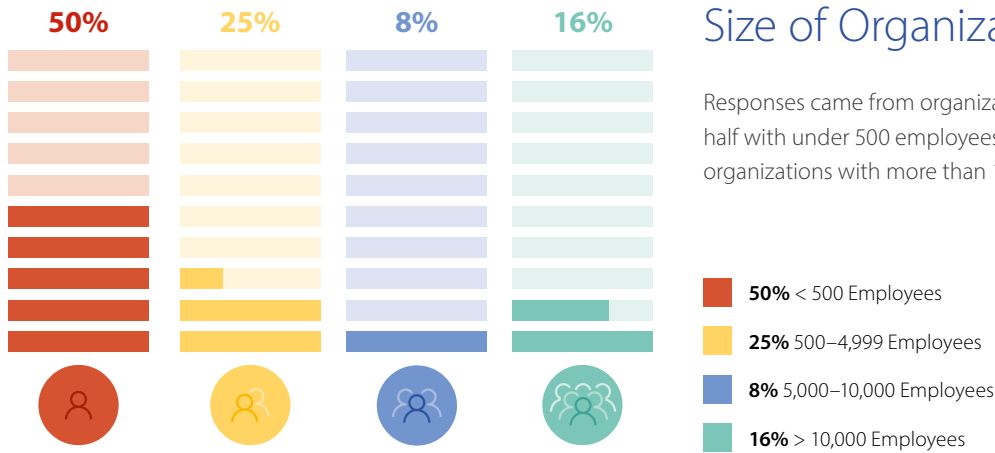


Fig. 16: Company Size

Source: State of Application Development 2019/2020. OutSystems ©

Industries

All industries were represented in the survey, the top seven being software, technology (including computers, telecommunications, internet), consultants and system integrators, government and education, manufacturing (including automotive, aerospace, and defense), and banks and financial services.

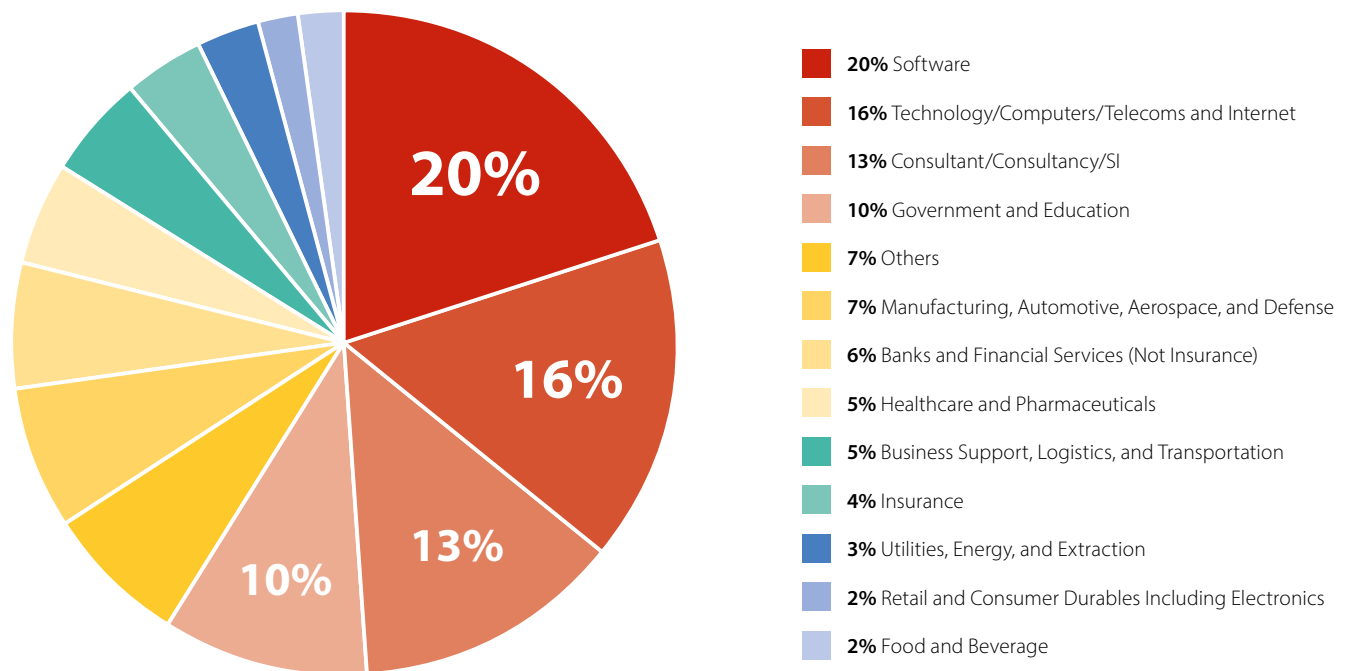


Fig. 17: Industries

Source: State of Application Development 2019/2020. OutSystems ©

Get the Full Report

The full report answers many more questions besides those explored in this banking industry summary. You can access the full report [here](#) to learn much more, including:

- What are organizations' top goals for digital transformation?
- What progress are organizations making with digital transformation, and how does that vary by industry sector?
- Which disruptive forces are of most concern to organizations in different industries in 2019?
- What proportion of applications planned for delivery in 2019 is new, as opposed to maintenance or replacement of apps that already exist?
- What are the most important types of app that organizations plan to deliver in 2019?
- What approaches and technology are organizations investing in to speed up application delivery?
- What are the top challenges that organizations blame for application delivery delays?
- What app dev skills are organizations hiring?
- How difficult is hiring for various app dev roles?
- Which app dev skills will organizations acquire through consultants and outsourcing providers in 2019?
- What app dev training and development priorities do organizations have in 2019?
- What kinds of use are organizations making of low-code application development platforms?
- Are citizen developers being governed effectively in organizations?
- What reasons do organizations give for using or not using low-code?
- What fears regarding low-code still worry potential IT buyers?

About OutSystems

OutSystems is the number one platform for low-code rapid application development. Thousands of customers worldwide trust OutSystems as the only solution that combines the power of low-code development with advanced mobile capabilities, enabling visual development of entire application portfolios that easily integrate with existing systems.



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