SPECIAL REPORT

Top Trends In
Low-Code Development

Insights from IT leaders into the business value of low-code application development

About This Report

Salesforce Research interviewed 153 IT leaders (with seniority of manager or higher) in the U.S. in February 2017 to get their views on low-code development. This report reviews the results of that survey, and analyzes its implications.
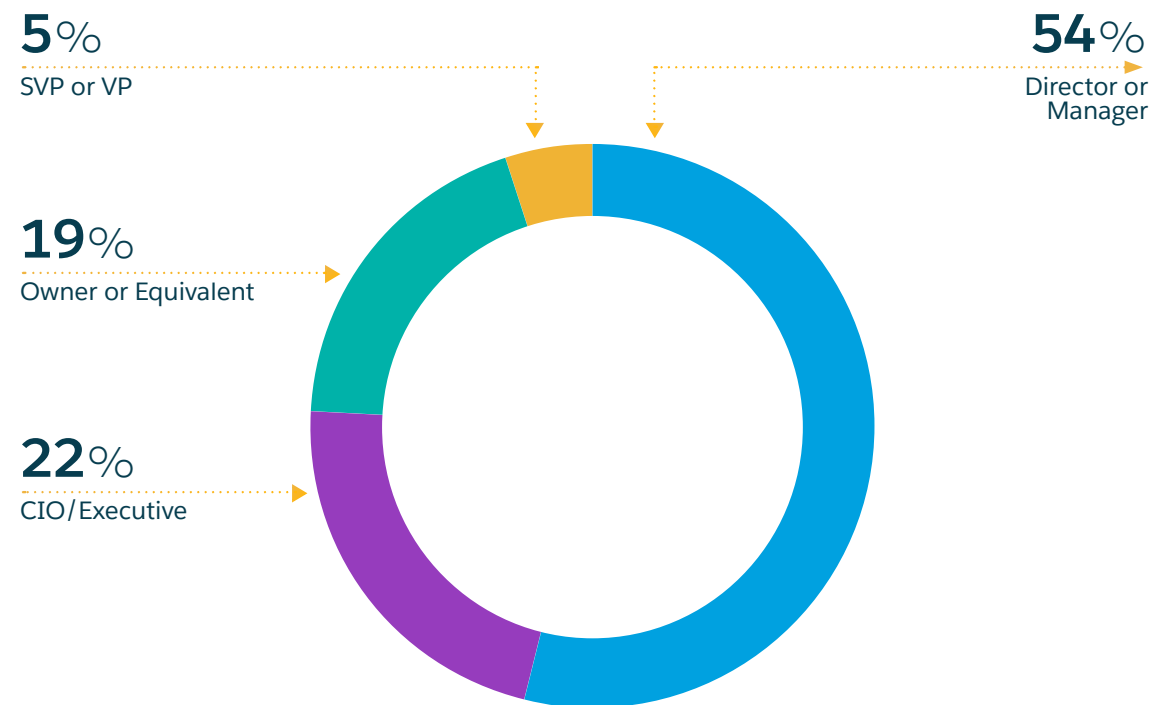
Due to rounding, not all percentages in this report equal 100%. All comparison calculations are made from total numbers (not rounded numbers).

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Survey Demographics

Survey respondents are U.S.-based IT leaders at the manager level or above.

Percentage of IT Leaders Interviewed for This Report

5%
SVP or VP

54%
Director or Manager

19%
Owner or Equivalent

22%
CIO/Executive

Table of Contents

Executive Summary
Two key takeaways

Few technologies are seen as having as much promise to revolutionize the software development process as are low-code platforms. Low-code development has the potential to transform the critical relationship between IT and business units and empower quick innovation in a new digital era.

IT organizations see an immense opportunity to save development time and costs through low-code development tools. However, teams must be willing to invest time and effort in employee training and management processes to realize low-code's potential to accelerate application development.

01 | **Brighter Futures:** IT Is Poised to Unlock the Benefits of Low-Code Development
(See page 4)

IT professionals understand the potential impact of low-code development on their organization. They see significant payoffs both for their own developers, and for the business users who rely on them entirely for their software applications. These benefits include reduced development times and costs. This is creating a groundswell of enthusiasm for tools that can help create software applications with minimal coding. Seventy-six percent of IT pros are extremely or very interested in low-code development. That represents a 48% growth in interest compared to two years ago.

02 | **Doing the Groundwork:** Governance and Controls Are Key
(See page 7)

While the interest in low-code development is growing, IT professionals recognize its challenges. They worry that key elements such as IT governance and non-developer training are not yet adequate to support such a radical technology transition. These concerns divide IT professionals by seniority; mid-level employees are far more concerned about process readiness than more senior executives. Whereas 51% of senior executives are confident that business units are willing and ready to create apps using a low-code approach, only 30% of managers and directors feel the same.

IT leaders are more comfortable with their own developers using low-code development tools than they are with business users from outside the IT department. Nevertheless, most IT leaders plan to give business users some app-building opportunities, even if on a limited basis.

01 Brighter Futures:
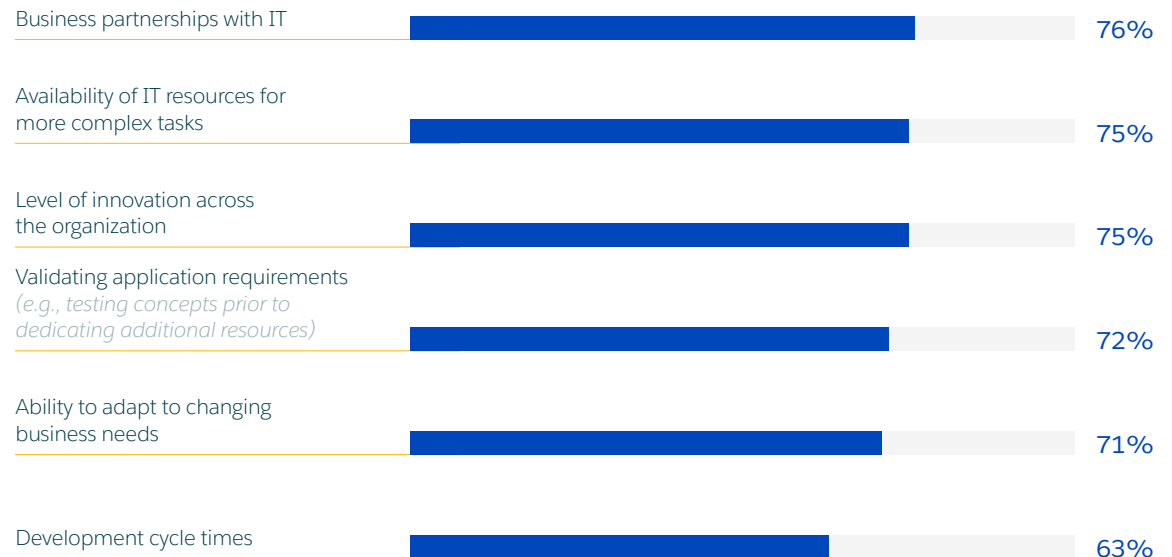## IT is Poised to Unlock the Benefits of Low-Code Development

Low-code development promises several benefits to organizations that invest the time and effort to make it work. The most significant of these is closer alignment between business departments and IT teams. **Seventy-six percent of IT leaders believe that low-code tools will have a transformational or substantial impact on their partnerships with the business.**

Empowering business users to create their own applications is also viewed as being able to free up IT resources for innovation, making low-code development a win-win proposition. Business users can begin innovating on their own without constantly draining IT resources, which means quicker adaptation to changing business requirements, faster. **Sixty-three percent of IT leaders believe that low-code development will positively impact the software development cycle, enabling business users to deploy applications more quickly.**

IT Foresees Big Payoffs From Nurturing Citizen Developers

IT professionals envision different benefits when equipping business users with low-code development tools.

Percentage of IT Leaders Who Say That Business Users Using Low-Code Development Tools Will Have a Transformational or Substantial Impact

Business partnerships with IT — 76%

Availability of IT resources for more complex tasks — 75%

Level of innovation across the organization — 75%

Validating application requirements *(e.g., testing concepts prior to dedicating additional resources)* — 72%

Ability to adapt to changing business needs — 71%

Development cycle times — 63%

01 Brighter Futures:
IT is Poised to Unlock the Benefits of Low-Code Development

With these potential benefits promising to transform IT-business partnerships, more companies are considering this exciting technology. Two years ago, 52% of companies surveyed were interested in rolling out this technology.

Now, a full 76% of respondents are either extremely or very interested in developing applications using minimal coding. This number is likely to increase still further in two years, with more than four in five respondents forecasting strong interest within that time frame.
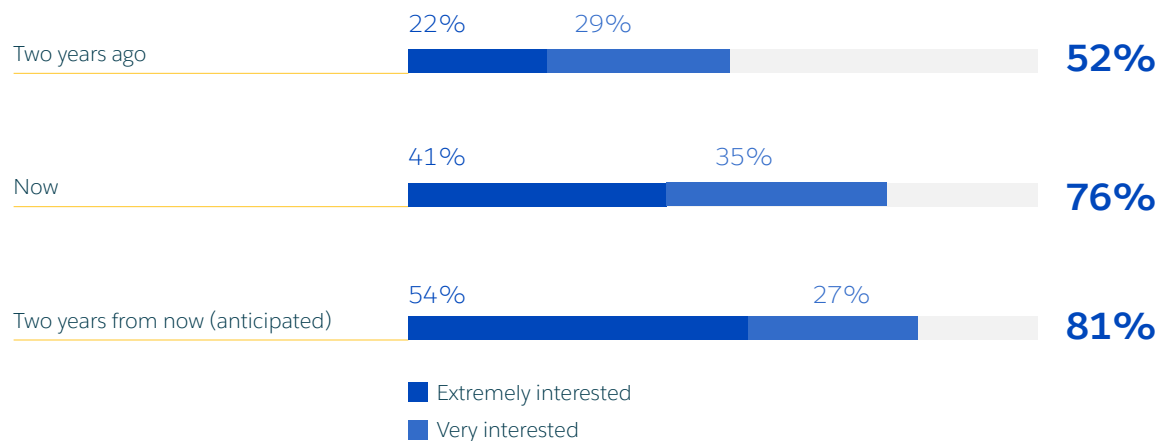
The first step along this path is to explore the options available to them. Already, 88% of IT leaders have evaluated low-code solutions.

88% of IT leaders have already evaluated a low-code application development solution.

Interest in Low-Code Development Is Growing

Interest in low-code development is trending upwards over time.

Percentage of IT Leaders Who Say The Following About Their Organization's Level of Interest in Low-Code Development During Each Time Period

Time Period	Extremely interested	Very interested	Total
Two years ago	22%	29%	**52%**
Now	41%	35%	**76%**
Two years from now (anticipated)	54%	27%	**81%**

■ Extremely interested
■ Very interested

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01 Brighter Futures:
IT is Poised to Unlock the Benefits of Low-Code Development

IT realizes that implementing low-code development requires persistence and planning. IT departments that invest time and effort in exploring this approach to software development expect the positive impacts to be far greater than those relatively new to the concept.
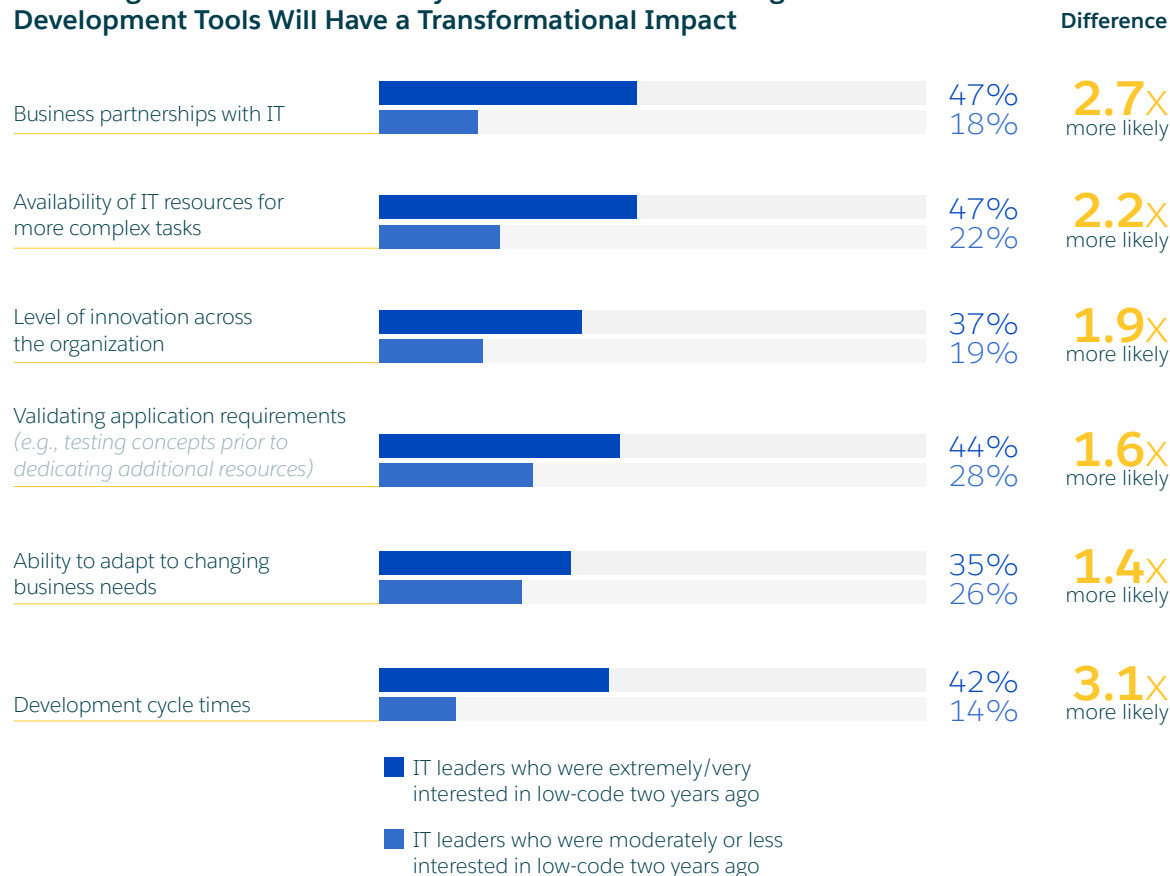
Companies that have been interested in low-code development for two years are more likely to foresee it transforming their operations than those who have not. **IT leaders with long-standing interest in low-code development are 3.1x more likely than those just starting out with the technology to believe it will have a transformational or substantial impact on their application development cycles.**

Organizations that have been actively interested in the technology for two years or more expect the biggest impacts to be on their relationships with business departments, and on their ability to free up staff for more complex tasks. Forty-seven percent of such organizations expect low-code development to transform these aspects of their operations.

Longer-Term Interest Increases Impact

The longer that IT spends exploring low-code development, the greater the benefits they see.

Percentage of IT Leaders Who Say That Business Users Using Low-Code Development Tools Will Have a Transformational Impact

Difference

Business partnerships with IT
47%
18%
2.7x more likely

Availability of IT resources for more complex tasks
47%
22%
2.2x more likely

Level of innovation across the organization
37%
19%
1.9x more likely

Validating application requirements *(e.g., testing concepts prior to dedicating additional resources)*
44%
28%
1.6x more likely

Ability to adapt to changing business needs
35%
26%
1.4x more likely

Development cycle times
42%
14%
3.1x more likely

■ IT leaders who were extremely/very interested in low-code two years ago

■ IT leaders who were moderately or less interested in low-code two years ago

02 Doing the Groundwork:
Governance and Controls are Key

Business units are bullish on empowering their users to develop applications – **82% of IT leaders say that business units are ready and willing to develop their own apps using low-code techniques.**

But IT may not be ready to let go of application development. When asked which users should be allowed to build apps using low-code development, the most popular answer by far among IT leaders was their own application development staff, followed by IT administrators.
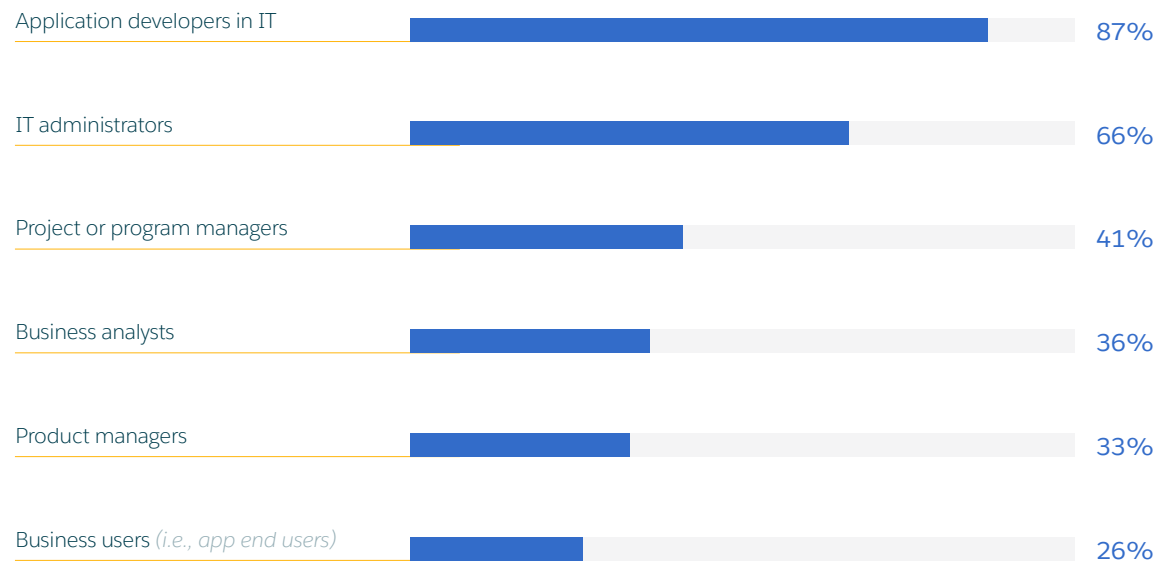
Responses from IT executives clearly grouped business users as their least popular choice for creating applications. Barely a quarter of IT professionals highlighted business users as candidates for low-code development.

Losing control over code quality, needing to change existing release processes, and lack of understanding around the application security and review process may contribute to the reluctance to let business users take on low-code development.

More Governance Is Needed to Build Trust

IT leaders are hesitant to hand software development over to non-technical stakeholders.

Percentage of IT Leaders Who Say the Following Users Should Be Allowed to Build Apps with a Low-Code Development Approach

Application developers in IT	87%
IT administrators	66%
Project or program managers	41%
Business analysts	36%
Product managers	33%
Business users *(i.e., app end users)*	26%

02 Doing the Groundwork:
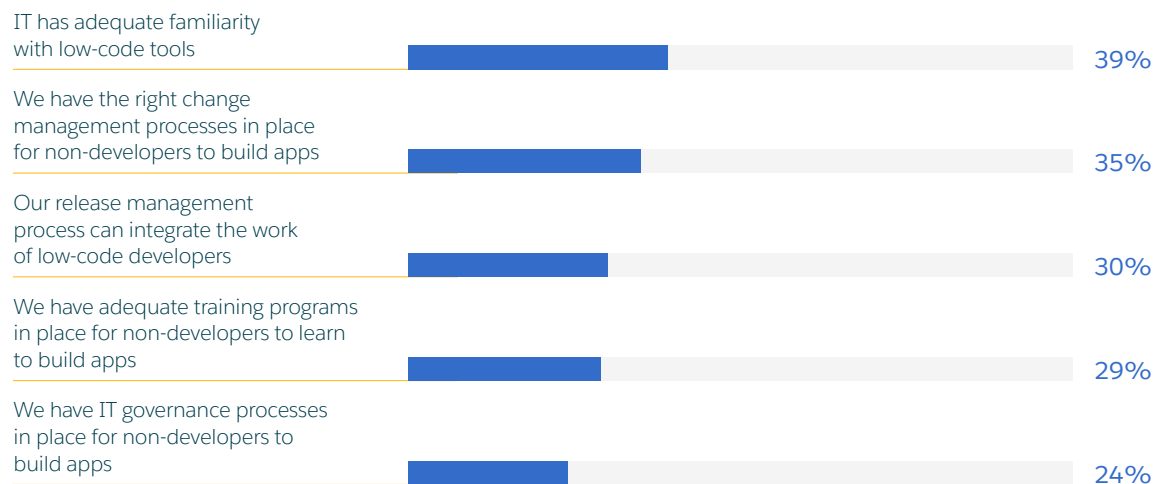## Governance and Controls are Key

IT's lack of confidence in non-developer staff to create their own applications stems from a lack of confidence in the processes and enablement necessary to support it.

Governance and training are key issues. **Less than a quarter (24%) of IT respondents strongly agree that their organization has appropriate IT governance processes for non-developers to build applications.** Similarly, fewer than one in three organizations have proper training programs to empower non-developers to use low-code development techniques in practice.

Proper Training and Empowerment is Key

When it comes to readiness for low-code development, IT professionals are more confident in some areas than in others.

Percentage of IT Leaders Who Strongly Agree with the Following Statements

IT has adequate familiarity with low-code tools — **39%**

We have the right change management processes in place for non-developers to build apps — **35%**

Our release management process can integrate the work of low-code developers — **30%**

We have adequate training programs in place for non-developers to learn to build apps — **29%**

We have IT governance processes in place for non-developers to build apps — **24%**

02 Doing the Groundwork:
Governance and Controls are Key

Senior IT executives are relatively confident that their organizations can handle low-code process. Those closer to the front lines of software development, however, are more cautious.

VPs who strongly believe their company can train non-developers in low-code development outnumber managers by more than three to one.
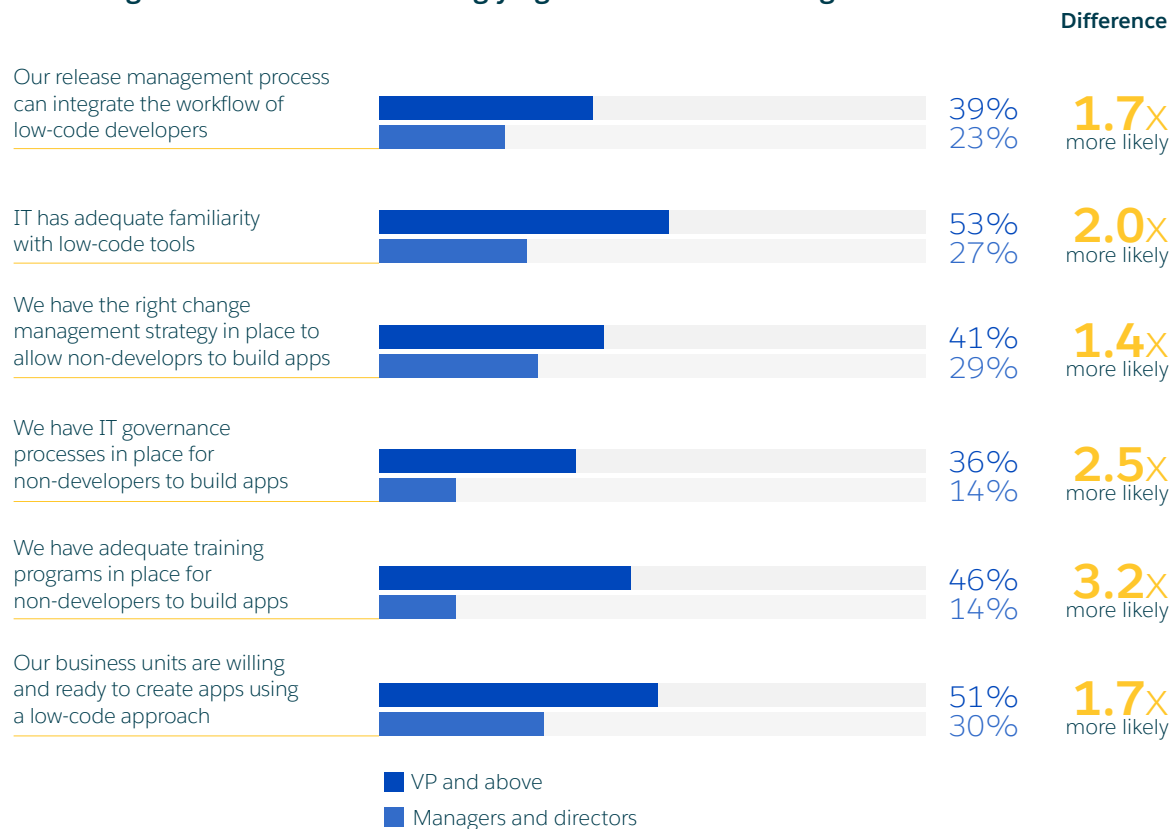
Fourteen percent of managers believe that their organization has the appropriate governance programs for low-code development. In contrast, 36% of VPs think so.

Managers are also less confident than senior execs that their organizations can support change management and release management processes in a low-code environment

Senior IT Executives Are More Confident

Senior IT executives are more confident than mid-level IT employees in organizational readiness for low-code tools and techniques.

Percentage of IT Leaders Who Strongly Agree with the Following Statements

Difference

Our release management process can integrate the workflow of low-code developers
39%
23%
1.7x more likely

IT has adequate familiarity with low-code tools
53%
27%
2.0x more likely

We have the right change management strategy in place to allow non-developrs to build apps
41%
29%
1.4x more likely

We have IT governance processes in place for non-developers to build apps
36%
14%
2.5x more likely

We have adequate training programs in place for non-developers to build apps
46%
14%
3.2x more likely

Our business units are willing and ready to create apps using a low-code approach
51%
30%
1.7x more likely

■ VP and above
■ Managers and directors

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02 Doing the Groundwork:
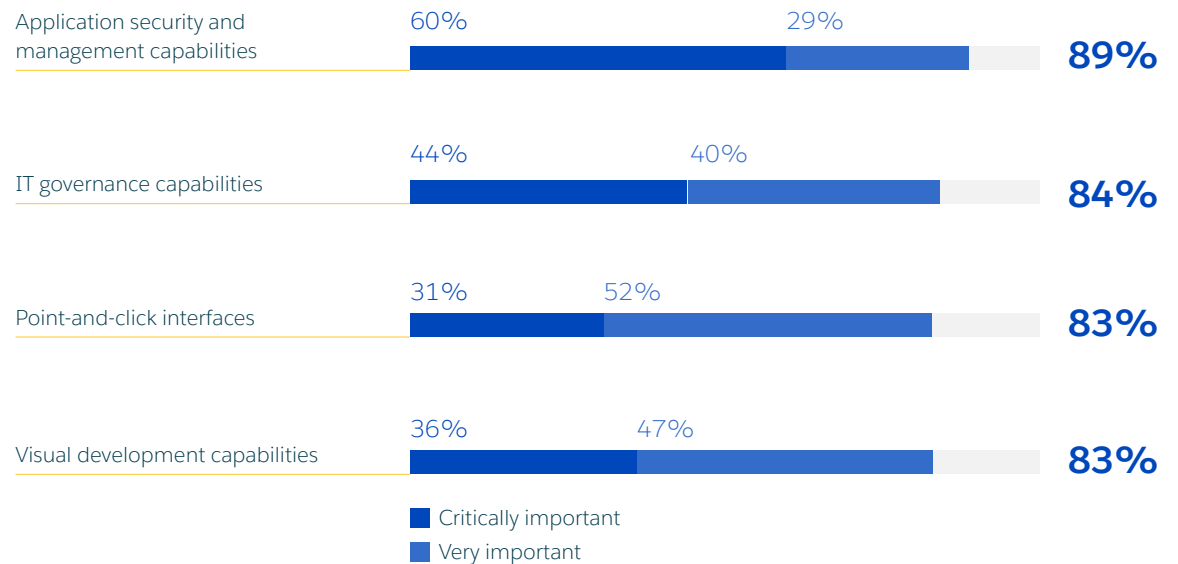## Governance and Controls are Key

IT is concerned about application security when citizen developers build applications using the low-code approach. What does this mean? To gain confidence, IT likely needs a closer evaluation of the security capabilities offered by established cloud-based low-code platforms.

89% of IT leaders say that application security and management capabilities are critically or very important when evaluating low-code development tools. IT governance, which is closely linked to risk management and cybersecurity, was next highest on the list.

Low-Code Application Security Is Top of Mind

Security and governance lead in importance when evaluating low-code development tools.

Percentage of IT Leaders Who Say the Following Factors Are Important When Evaluating Low-Code Development Tools

Application security and management capabilities
60%   29%   **89%**

IT governance capabilities
44%   40%   **84%**

Point-and-click interfaces
31%   52%   **83%**

Visual development capabilities
36%   47%   **83%**

■ Critically important
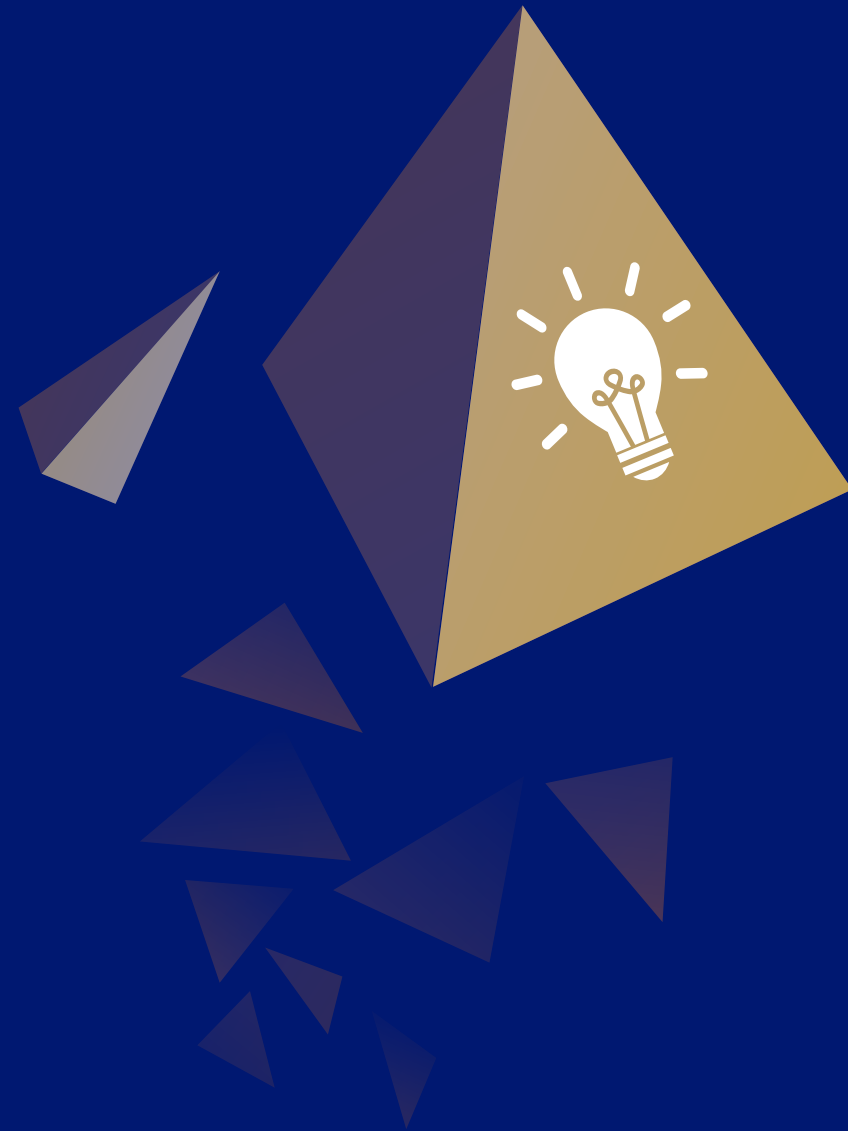■ Very important

Last Look
Preparing for Innovation

Low-code development promises to create a large pool of non-technical application developers who already understand the business problems they need to solve. Inspiring and empowering these new citizen developers to create applications free up IT staff to concentrate on more strategic initiatives. Such efforts will foster better collaboration and faster delivery of transformational digital initiatives both within the company – for employees – and externally for customers.

For this to happen, IT departments must align internally to understand the challenges to deploying low-code tools and define proper governance and cross-functional application development processes. This transition can't just pivot existing technology and processes. It needs proper training and enablement of new, robust processes to support the development of new skills. For that reason, it is key that low-code platforms have a low learning curve and provide ample self-paced training solutions. According to an IDC ROI Study conducted on behalf of Salesforce, companies that have already implemented this development approach show on average a 50% faster application delivery. Therefore, low-code development has the potential to empower both IT and the business to blaze new trails to digital transformation – together.

Ready to explore the opportunities for low-code in your business?

Learn how IT leaders across 39 companies are pushing the boundaries of low-code to build faster, build smarter, and build everything connected together.

In the Age of the Customer, they're the IT leaders who are leveraging data, technology, and apps to lead their business with speed, agility, and innovation.

In this e-book you'll discover how trailblazers are building apps on the Salesforce platform to connect with their customers in a whole new way.

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