

13th annual **STATE OF AGILE™ REPORT**



COLLABNET
VERSIONONE

EXECUTIVE SUMMARY



The 13th annual State of Agile survey saw more global diversity, with Europe, Asia, South America, and Africa each showing an increase as a percentage of the total number of respondents. The survey results echoed a few familiar trends, while revealing a couple of notable changes.

CONTINUING TRENDS



SCRUM AND SAFE® ARE STILL SOLIDLY IN THE LEAD

Scrum is again reported as the most widely-practiced agile “methodology”, with at least 72% of respondents practicing Scrum or a hybrid that includes Scrum. 30% report that SAgile® is the approach their organization follows most closely, with Scrum of Scrums coming in a distant second.



ORGANIZATIONAL CULTURE STILL MATTERS

Once again, the survey responses indicate that organization cultural issues remain the leading impediments to adopting and scaling agile. General resistance to change, inadequate management support and sponsorship, and organizational culture that is at odds with agile values rank as the top three challenges.



DEVOPS TRANSFORMATION IS IMPORTANT

Organizations, year over year, show increasing importance of their need to understand and implement DevOps and its core technical practices of Continuous Integration and Continuous Delivery while also focusing on how those technical practices paired with increasing Test Automation can transform the culture between the Development and Operations organizations. Organizations and their teams want to address the visibility and delivery speed challenges they have with DevOps and its technical practices but struggle to understand where the best place to start is because many DevOps transformations start as “big-bang” efforts.

NOTABLE CHANGES

Two observations stand out, as compared to the 12th annual report:

71%

Reduce Project Cost
as a reason for
adopting agile

27%

Reduce Project Cost
reported benefit of
implementing agile

COST REDUCTION HAS GAINED IMPORTANCE

This year saw a 71% increase in those selecting “Reduce Project Cost” as a reason for adopting agile. There was also a 27% increase in “Project Cost Reduction” as a reported benefit of implementing agile.

1

INTERNAL
AGILE COACHES

2

EXECUTIVE
SPONSORSHIP

3

COMPANY-
PROVIDED TRAINING
PROGRAMS

INVESTMENT IS VITAL FOR SUCCESS IN SCALING AGILE

When asked what has been the most valuable in helping to scale agile practices, the top three responses were “Internal agile coaches”, “Executive sponsorship”, and “Company-provided training”. All three of these point to a commitment to invest in success. In last year’s survey, Executive sponsorship ranked fifth, and company-provided training did not rank in the top 5.

LOOKING FORWARD

DevOps continues to show momentum in this year’s survey. 42% of respondents told us that DevOps transformation is “Very important” and 73% reported that a DevOps initiative is either planned or currently underway. We expect this trend to continue, as a means of accelerating the delivery of high-quality solutions at scale.

We also expect that agile organizations will increasingly require that their outsourcing partners are capable of agile software delivery. 40% of respondents report that they plan to increase the use of agile in outsourced projects over the next 24 months.

As Agile and DevOps transformation become more common in organizations, there is a growing need for the two to be connected to help move organizations forward and gain competitive advantage. Even more importantly there is a need for week to week, month to month, quarter to quarter or year to year outcomes to be made visible and for there to be a focus on iterative investment so that a company can inspect, adapt, continue investing or pivot in its Agile or DevOps Transformation.



TABLE OF CONTENTS

<p>PAGE 5 & 6</p> <p>RESPONDENT DEMOGRAPHICS</p> <ul style="list-style-type: none"> • Size of Organization • Size of Software Organization • Location of Organization • Role • Industry • Distributed Teams 	<p>PAGE 7</p> <p>COMPANY EXPERIENCE AND ADOPTION</p> <ul style="list-style-type: none"> • Company Experience • Percentage of Teams Using Agile • Reasons for Adopting Agile • Agile Maturity
<p>PAGE 8</p> <p>BENEFITS OF AGILE</p> <ul style="list-style-type: none"> • Benefits of Adopting Agile 	<p>PAGE 9 & 10</p> <p>AGILE METHODS AND PRACTICES</p> <ul style="list-style-type: none"> • Agile Methodology Used • Top 5 Agile Techniques • Agile Techniques Employed • Engineering Practices Employed • Agile in Outsourced Development Projects
<p>PAGE 11</p> <p>AGILE SUCCESS AND METRICS</p> <ul style="list-style-type: none"> • Success of Agile Projects • How Success Is Measured <i>With</i> Agile Transformations • How Success Is Measured <i>With</i> Individual Agile Projects 	<p>PAGE 12</p> <p>SCALING AGILE</p> <ul style="list-style-type: none"> • Scaling Methods and Approaches • Top 5 Tips for Success with Scaling Agile • Challenges Experienced Adopting & Scaling Agile
<p>PAGE 13-15</p> <p>AGILE PROJECT MANAGEMENT TOOLS</p> <ul style="list-style-type: none"> • General Tool Use and Preferences • Use of Agile Management Tools • Recommended Agile Project Management Tools 	<p>PAGE 16</p> <p>AGILE + DEVOPS & VALUE STREAM MANAGEMENT</p> <ul style="list-style-type: none"> • DevOps Initiatives • Importance of DevOps Transformation • How Success Is Measured with DevOps Initiatives • Improving DevOps Practices • Importance of Value Stream Management (VSM)

ABOUT THE SURVEY

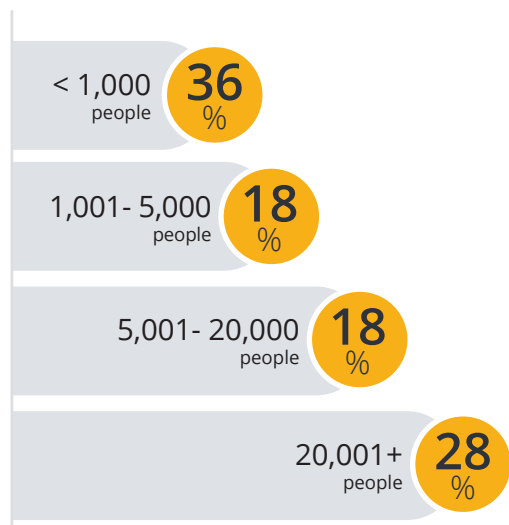
The 13th annual State of Agile survey was conducted between August and December 2018. Sponsored by CollabNet VersionOne, the survey invited individuals from a broad range of industries in the global software development community and was promoted far beyond CollabNet VersionOne's customer base at tradeshow and on multiple digital channels. 1,319 full responses were collected, analyzed, and represented in this report. Only 17% of the respondents were CollabNet VersionOne customers, indicating the range and diversity of respondents.

RESPONDENT DEMOGRAPHICS

Similar to past years, this survey collected responses from a diverse set of organization sizes, geographic locations, roles and industries. There was an increase in the number of responses coming from larger organizations (46% of respondents from organizations of more than 5,000 people and 41% last year). 53% of respondents were from outside of North America this year compared to 48% last year.

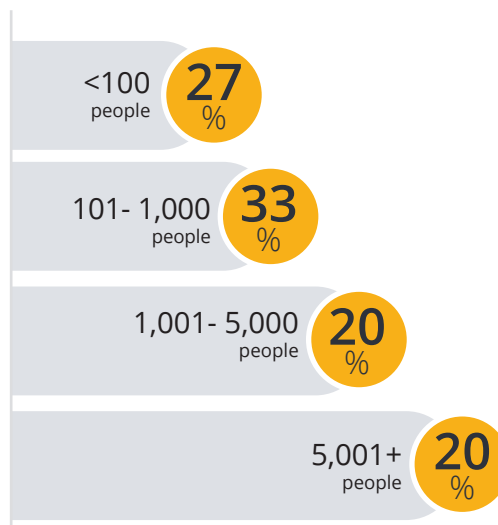
Size of Organization

Respondents who worked for organizations with:



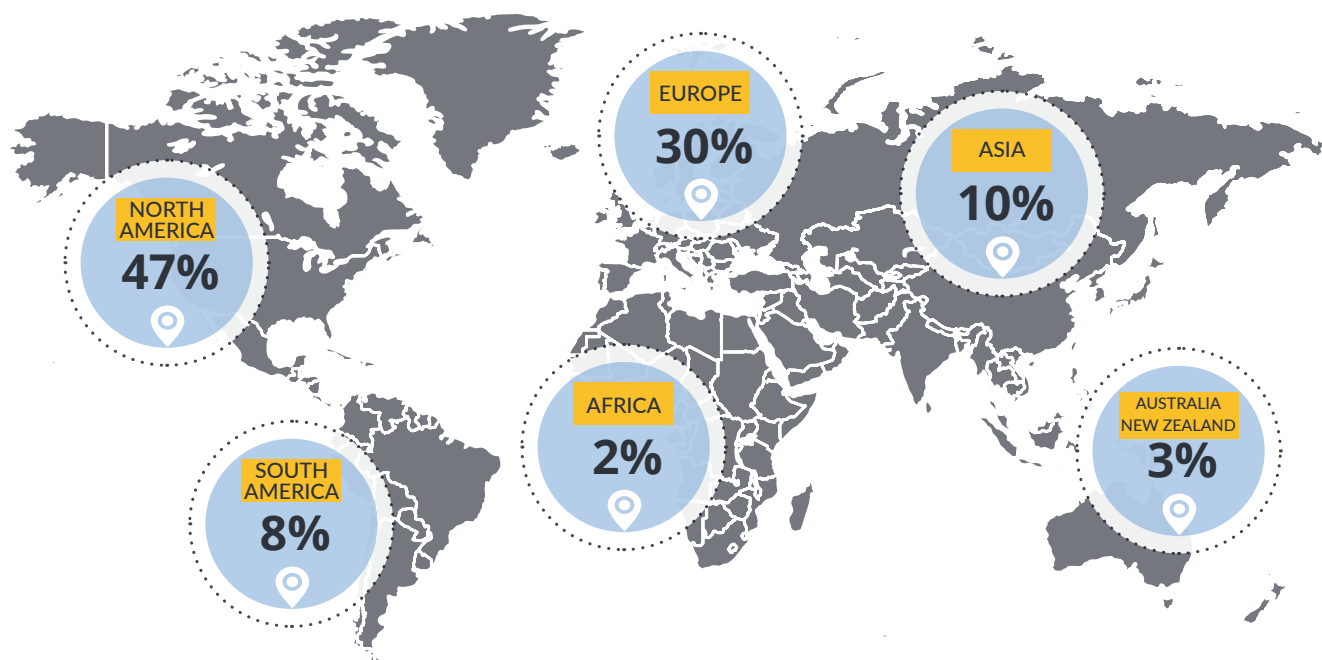
Size of Software Organization

Respondents who worked for organizations with software development organizations with:



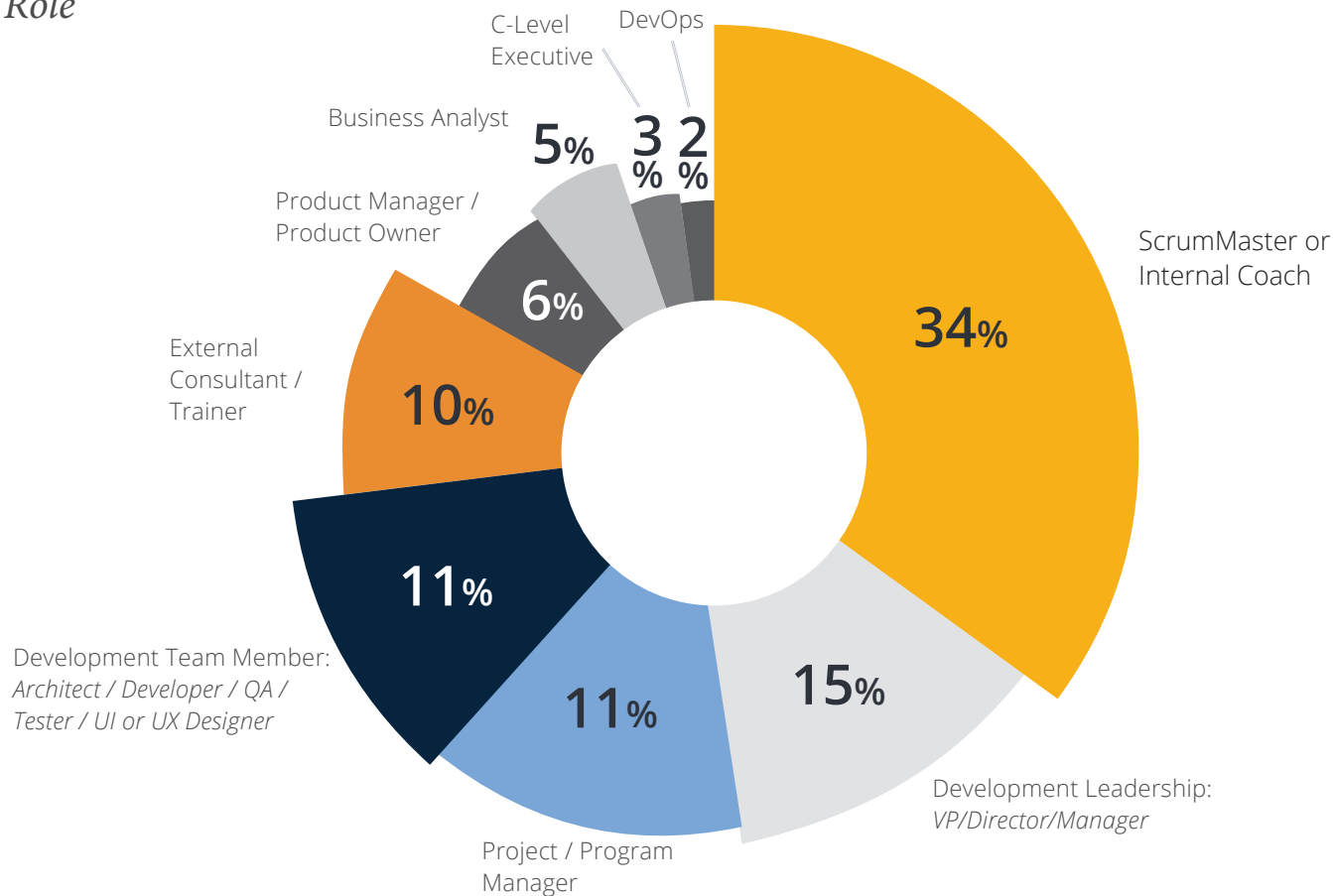
Location of Organization

Respondents were from:



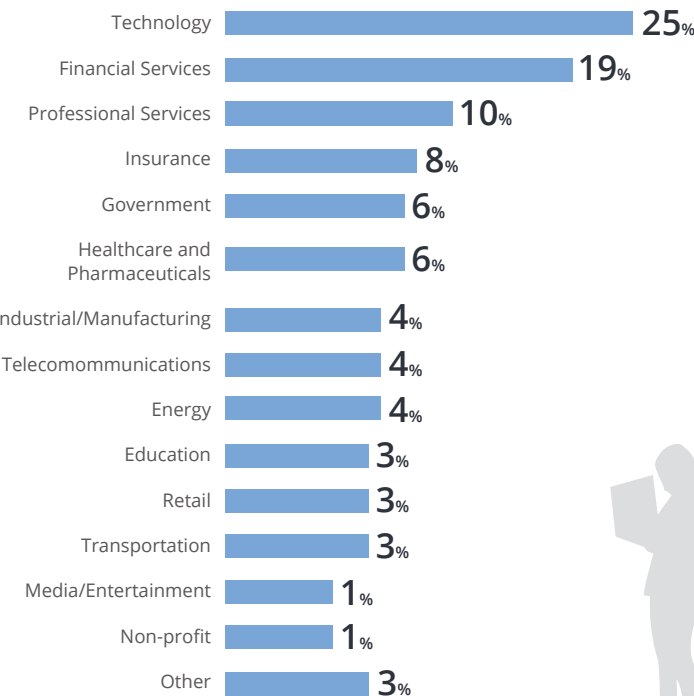
RESPONDENT DEMOGRAPHICS

Role



Industries

Industries respondents worked in:

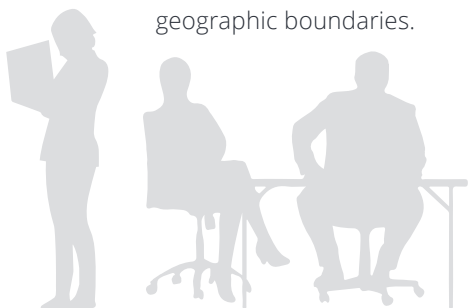


Distributed Agile Teams

While working together, face-to-face, can be desirable for agile practices, survey respondents indicated that organizations are supporting distributed teams and team members. There is no evidence of a trend toward increased co-location, as organizations continue to support and encourage team collaboration across geographic boundaries and timezones.

78% of respondents said their organization practices agile with team members distributed (not co-located).

68% of respondents said their organization practices agile with multiple co-located teams, collaborating across geographic boundaries.



COMPANY EXPERIENCE AND ADOPTION

Company Experience

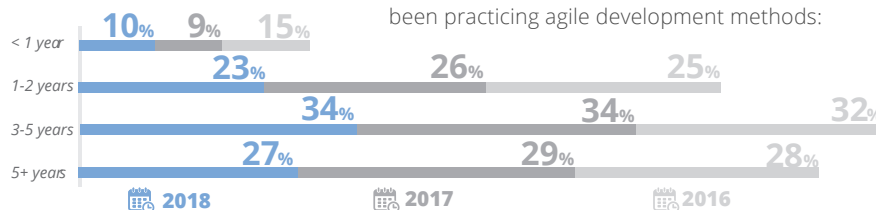
HOW MANY?

97% of respondents report their organizations practices agile development methods.



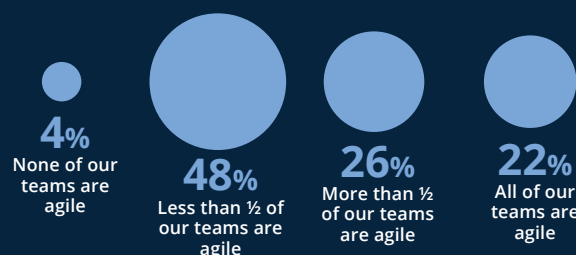
HOW LONG?

The length of time respondents' organizations have been practicing agile development methods:



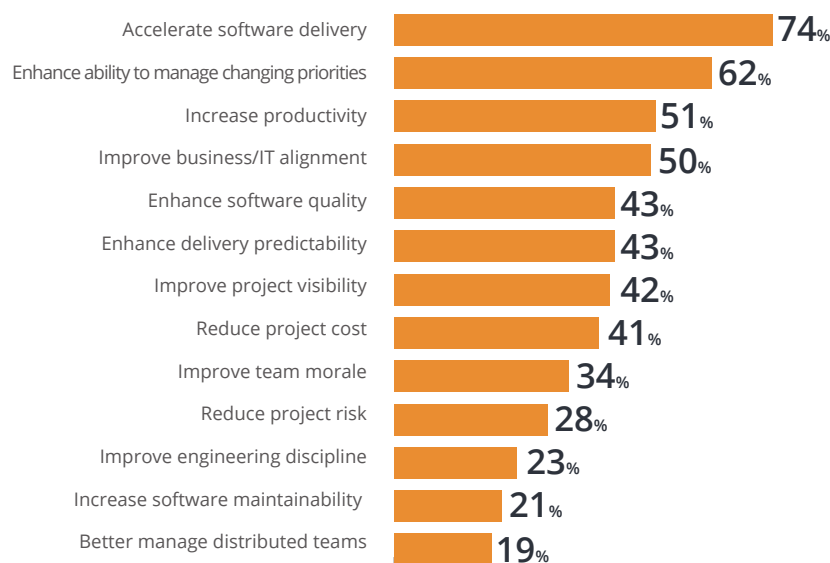
Percentage of Teams Using Agile

While buy-in and support for agile continues to grow, most respondents (78%) state that not all of their company's teams have adopted agile practices, an indication that most enterprise agile adoptions are still in flight.



Reasons for Adopting Agile

The reasons stated for adopting agile were less about increasing productivity (51% compared to 55% last year), and more about improving team morale (34% compared to 28% last year) and less about reducing project risk (28% compared to 37% last year), and more about reducing project costs (41% compared to 24% last year).



Agile Maturity

The vast majority of respondents (83%) said their organization were below a high level of competency with agile practices, further revealing opportunities for improvement through supporting training & coaching.

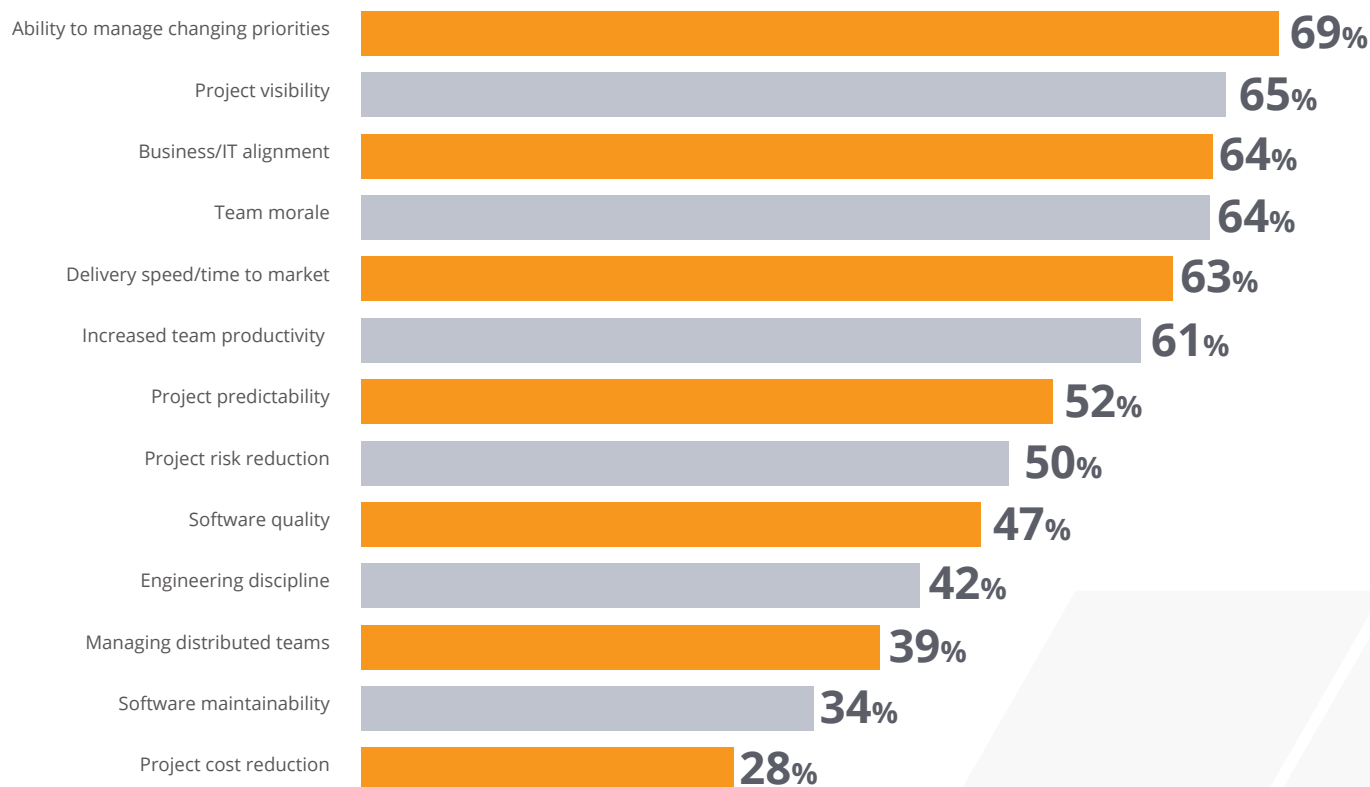


*Respondents were able to make multiple selections

BENEFITS OF AGILE

Benefits of Adopting Agile

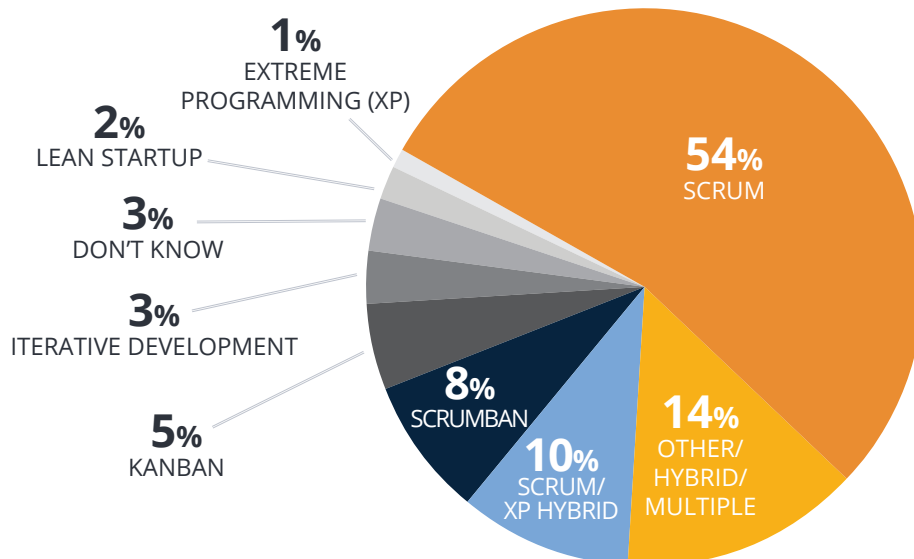
We continue to see many benefits realized by companies adopting agile, and specifically worth noting is the increase in those reporting team morale improvements (64% compared to 61% last year) along with increased reports of project predictability (52% compared to 49% last year) and reduction in project risk (50% compared to 47% last year).



AGILE METHODS AND PRACTICES

Agile Methodologies Used

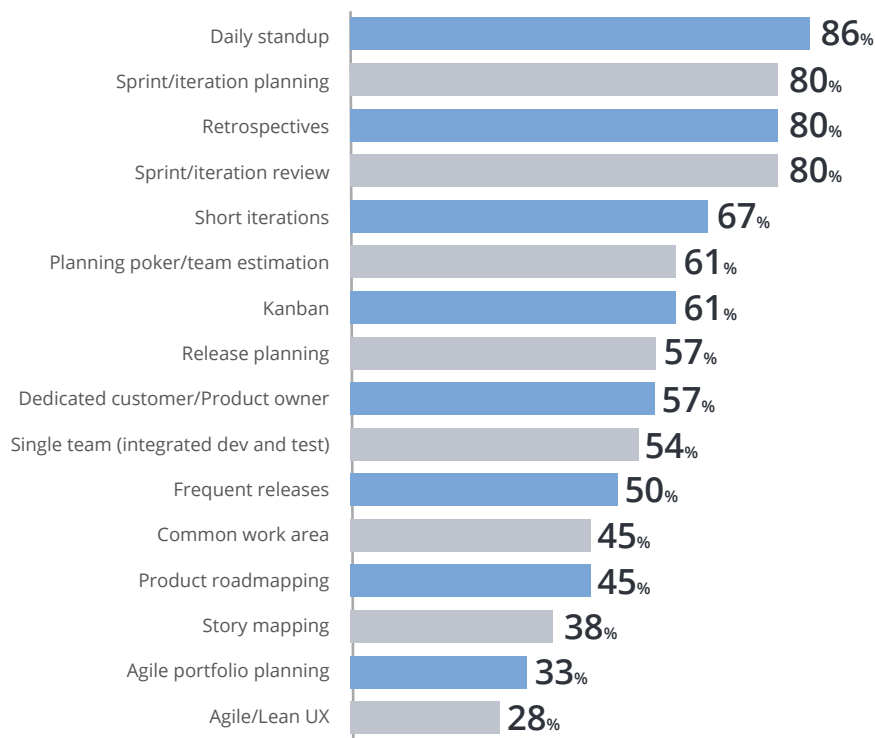
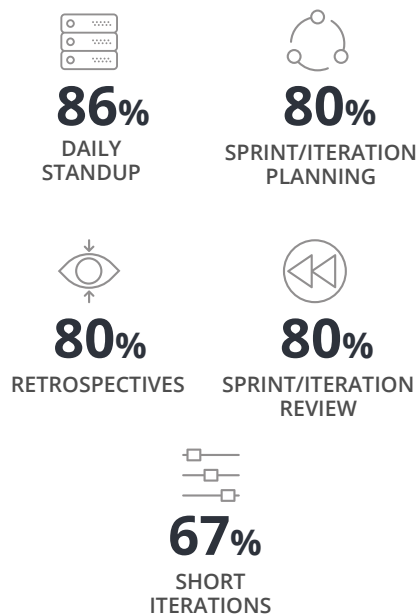
Scrum and Scrum/XP Hybrid (64%) continue to be the most common agile methodologies used by respondents' organizations.



Agile Techniques Employed

Notable changes in agile techniques and practices that respondents said their organization uses were Release planning (57% this year compared to 67% last year) and Dedicated customer/product owner (57% this year compared to 63% last year).

TOP 5 AGILE TECHNIQUES

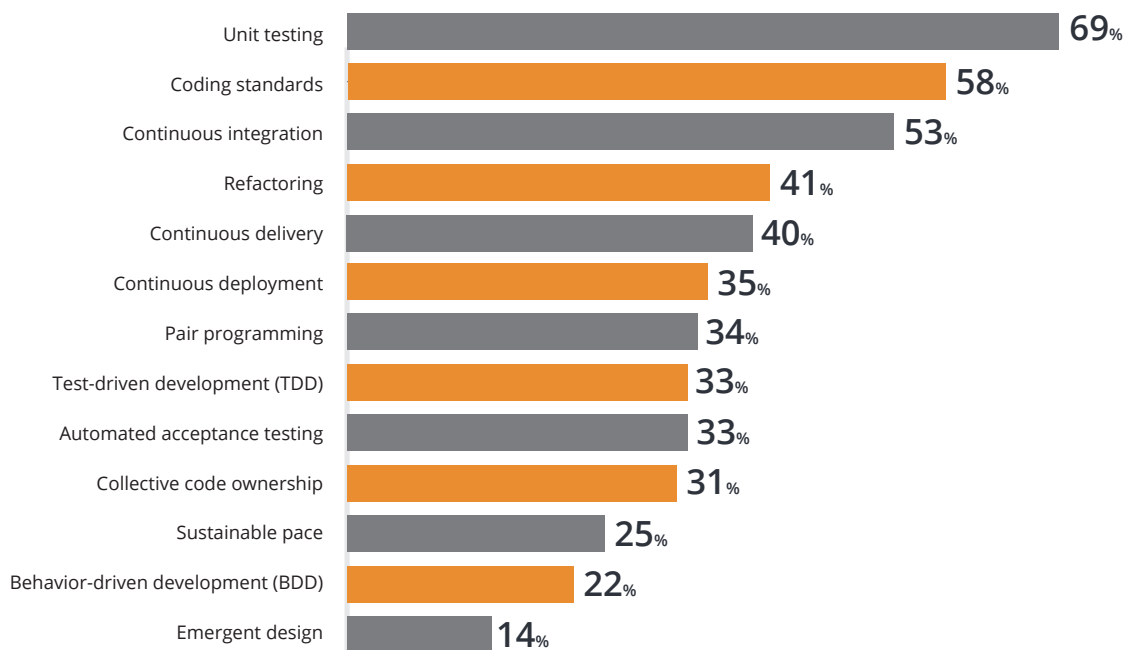


*Respondents were able to make multiple selections

AGILE METHODS AND PRACTICES

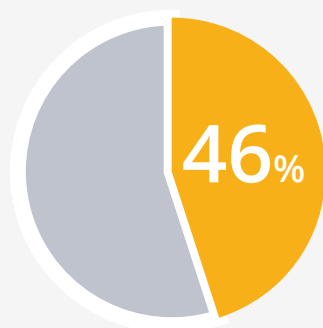
Engineering Practices Employed

The overall rank order of engineering practices employed remained the same this year with exception of one new addition to the survey: Continuous delivery. It entered the survey results as the 5th highest practice cited.

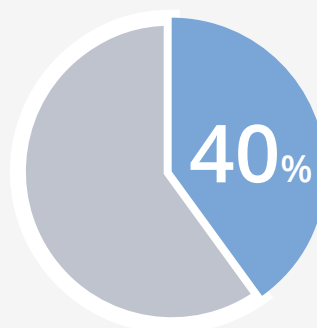


Agile in Outsourced Dev Projects

46% of respondents are using agile practices to manage outsourced development projects. 40% of respondents indicated they plan to increase the use of agile in outsourced development projects in the next 24 months.



USE AGILE TO MANAGE
OUTSOURCED PROJECTS



PLAN TO INCREASE USE OF AGILE
IN OUTSOURCED PROJECTS

*Respondents were able to make multiple selections

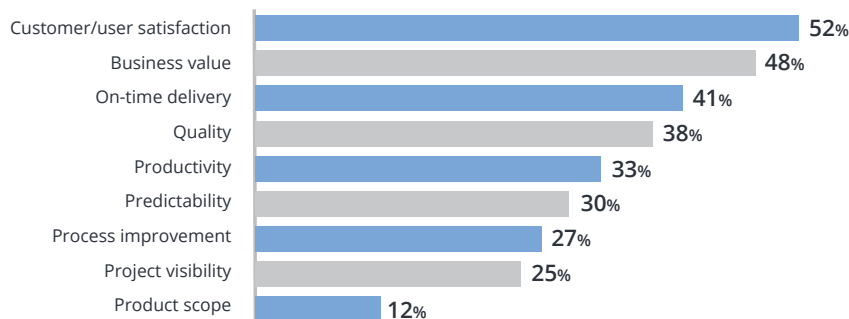
AGILE SUCCESS AND METRICS

Success of Agile Projects

95% of respondents reported at least some of their agile projects have been successful with 48% reporting that most or all of their agile projects were successful.

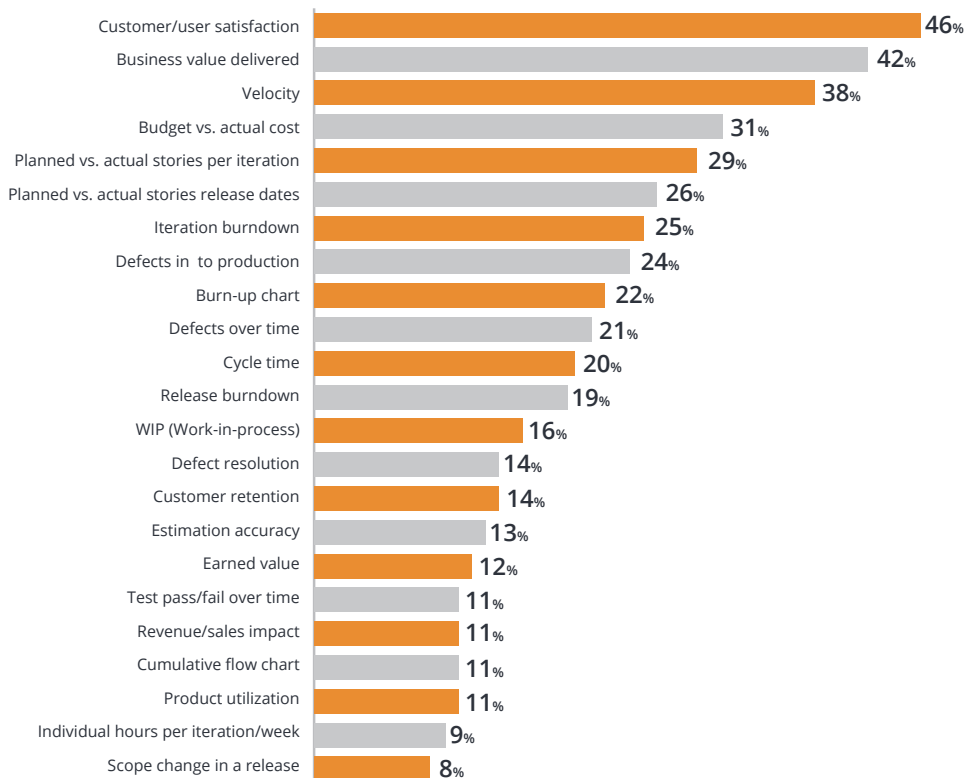
How Success Is Measured...with Agile Initiatives?

When asked about how organizations measure success of agile transformations, respondents indicated the three measures of success have remained the same over the last few years (Customer/user satisfaction, Business value and On-time delivery). Product scope saw a decline over the past years going from 40% to 20% and falling to 12% this year.



How Success Is Measured...with Individual Agile Projects?

Business value delivered and Customer/user satisfaction remained the top two cited measures of success for individual projects in this year's survey. Earned value went from 8% last year to 12% this year.

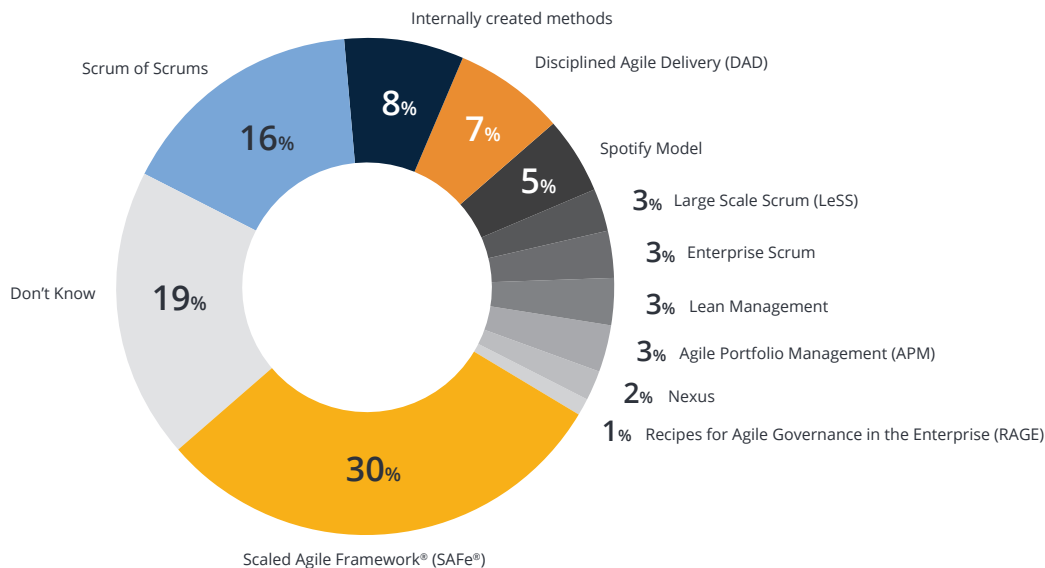


*Respondents were able to make multiple selections

SCALING AGILE

Scaling Methods and Approaches

The Scaled Agile Framework® continues to be the most popular scaling method cited by respondents (30% this year compared to 29% last year).



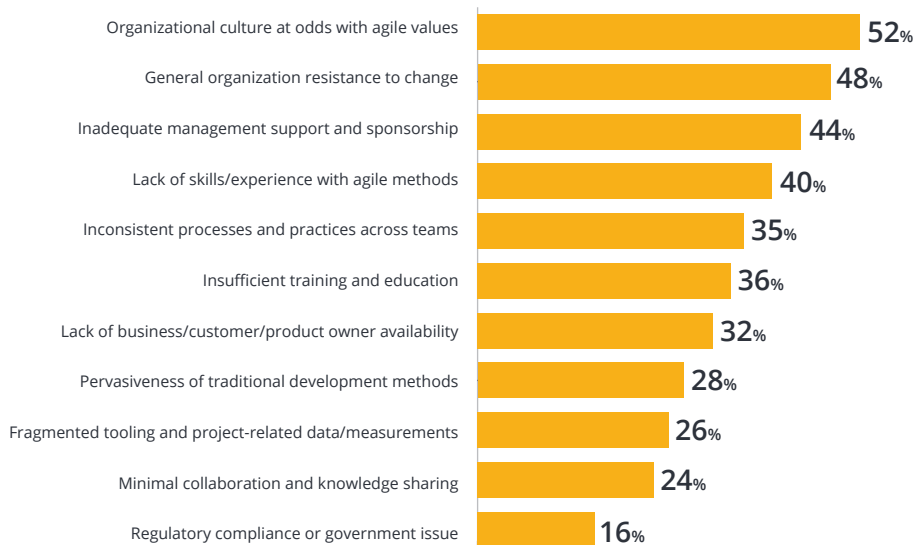
Top 5 Tips for Success with Scaling Agile

Respondent indicated the most valuable in helping them scale agile practices were:



Challenges Experienced Adopting & Scaling Agile

The top three responses cited as challenges/barriers to adopting and scaling agile practices indicate that internal culture remains an obstacle for success in many organizations.



*Respondents were able to make multiple selections

AGILE PROJECT MANAGEMENT TOOLS

General Tool Use and Preferences

More respondents stated using Automated acceptance tools (39% compared to 36% last year) and more respondents stated they plan to use Agile project management tools in the future (12% this year compared to 9% last year). There were also a few new options added to the survey this year (Wireframes, Product Roadmapping, Static Analysis and Timecards).

	CURRENT TOOL USAGE		FUTURE TOOL USAGE	
	2018	2017	2018	2017
Kanban board	75%	74%	9%	7%
Taskboard	70%	71%	10%	7%
Bug tracker	67%	72%	12%	10%
Spreadsheet	66%	65%	6%	4%
Agile project management tool	65%	67%	12%	9%
Wiki	62%	62%	12%	11%
Automated build tool	59%	60%	20%	20%
Unit test tool	54%	57%	17%	15%
Continuous integration tool	51%	52%	26%	24%
Wireframes	51%		13%	
Product Roadmapping	50%		27%	
Traditional project management tool	46%	43%	6%	5%
Requirements management tool	44%	46%	17%	13%
Release/deployment automation tool	44%	44%	25%	29%
Automated acceptance tool	39%	36%	25%	29%
Static Analysis	38%		14%	
Project & portfolio management (PPM) tool	36%	40%	24%	18%
Story mapping tool	29%	29%	21%	19%
Timecards	29%		9%	
Index cards	28%	29%	9%	7%
Refactoring tool	22%	19%	18%	15%
Customer idea management tool	18%	16%	18%	15%

*Respondents were able to make multiple selections

AGILE PROJECT MANAGEMENT TOOLS

Use of Agile Project Management Tools

Respondents cited using a myriad of different tools to manage agile projects.



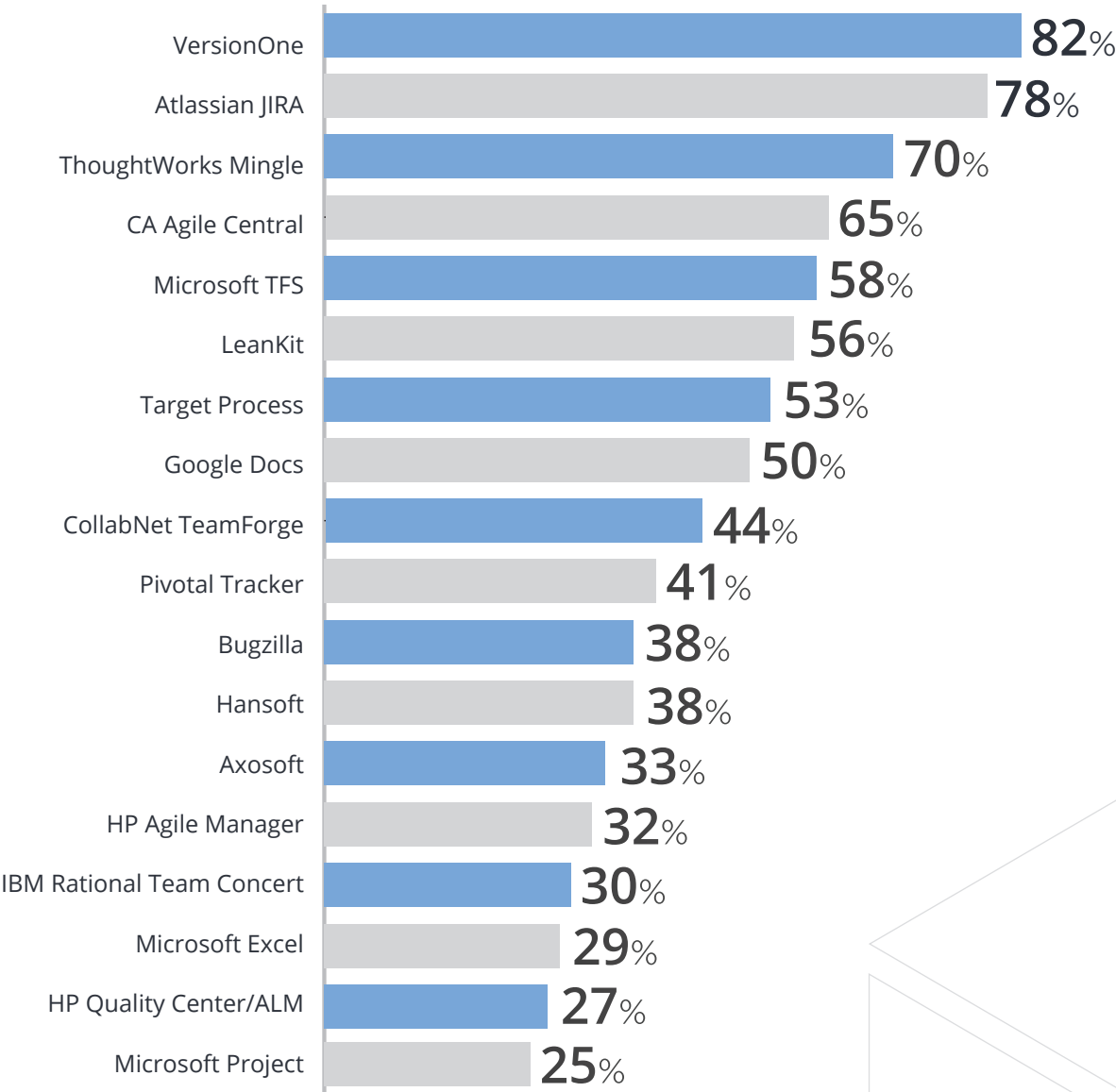
Axosoft	2%
Bugzilla	5%
Google Docs	19%
Hansoft	1%
HP Agile Manager	2%
HP QC/ALM	16%
In-house/home-grown	8%
Jira	65%
LeanKit	4%
Microsoft Excel	48%
Microsoft Project	24%
Microsoft TFS	23%
Mingle	2%
Pivotal Tracker	3%
Rally	9%
Rational Team Concert	5%
Target Process	1%
TeamForge	3%
VersionOne	14%

*Respondents were able to make multiple selections

AGILE PROJECT MANAGEMENT TOOLS

Recommended Agile Project Management Tools

Respondents were asked whether they would recommend the tool(s) they are using based on their experience. For the seventh year in a row, VersionOne had the highest recommendation rate of any other tool evaluated in the survey (82%).

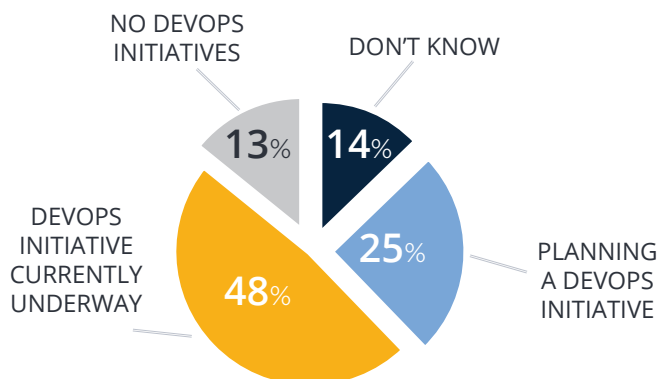


*Respondents were able to make multiple selections

AGILE + DEVOPS & VALUE STREAM MANAGEMENT

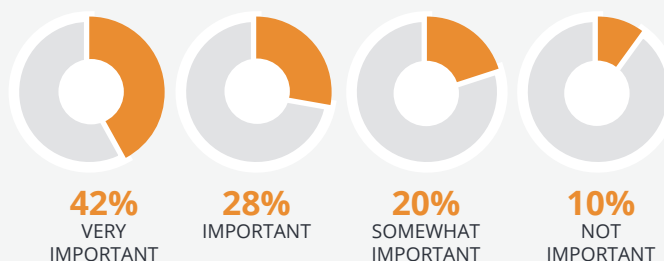
DevOps Initiatives

73% of respondents stated that they currently have a DevOps initiative in their organization or are planning one in the next 12 months (compared to 71% last year).



Importance of DevOps Transformation

90% of respondents said DevOps transformation was important in their organization.



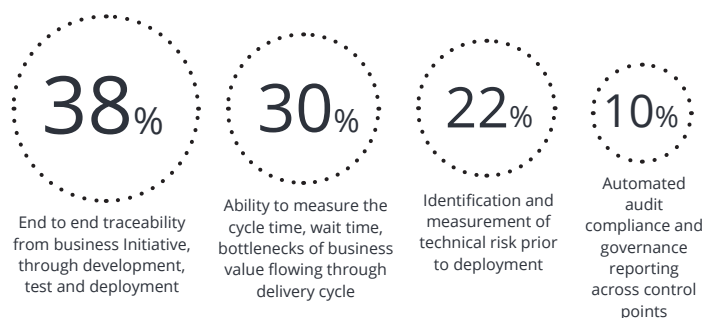
How Success Is Measured... with DevOps Initiatives

Respondents cited that the most critical measures of DevOps success are improved quality while delivering software faster. Ensuring compliance/governance had the largest increase year over year (17% last year to 26% this year).



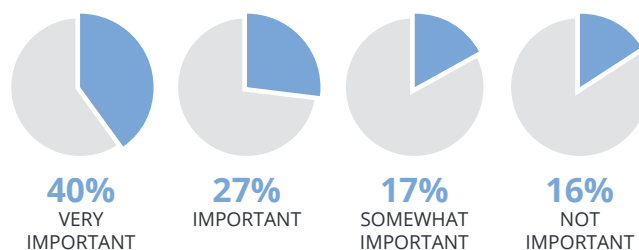
Improving DevOps Practices

When asked about which capabilities would be most valuable for improving DevOps practices in their organization, 38% said that having end to end traceability from business Initiative, through development, test and deployment would be most valuable, followed by having metrics that identify disruptions in that flow.



Importance of Value Stream Management

Value Stream Management (VSM) is an emerging tool category that connects an organization's business to its software delivery capability and helps those organizations realize the promises of connecting Agile and DevOps practices. 67% of respondents stated that it was important or very important to connect their organization's business to its software delivery capability.



*Respondents were able to make multiple selections