

the **12** th *annual*
STATE OF
AGILE™
REPORT

EXECUTIVE SUMMARY

BENEFITS OF AGILITY MATCHING EXPECTATIONS

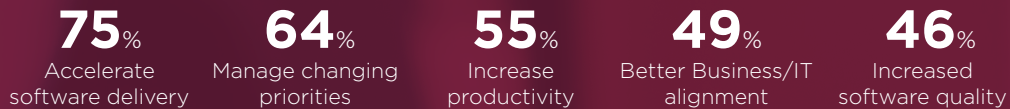
The 12th State of Agile survey found that **organizations are realizing the benefits they set out to achieve by adopting agile**. Four of the top five reported reasons for adopting agile are also reported in the top five areas most-impacted as the result of adopting agile.

Survey respondents also report that their organizations are recognizing agile success at the project level. Of those with knowledge of success at that level, 61% reported that “most” or “all” of their agile projects have been successful.

In terms of organizational agile maturity, there continues to be ample room for improvement. Only 12% percent responded that their organizations have a high level of competency with agile practices across the organization, and only 4% report that agile practices are enabling greater adaptability to market conditions. The encouraging news is that 59% recognize that they are still maturing, indicating that they do not intend to plateau where they are.

The Scaled Agile Framework® (SAFe®) is reported as the most widely-used approach to scaling agile, with nearly 1/3 (29%) saying that SAFe is the method they “follow most closely”. The scaling approach that saw the largest increase in reported use since last year is the Disciplined Agile Framework (DA), up from 1% in 2016 to 5% in this year’s survey.

Reason for Adopting Agile



Benefits of Adopting Agile



THE SURVEY RESULTS HIGHLIGHTED THREE THEMES:



ORGANIZATIONAL CULTURE MATTERS

This year's survey is consistent with that of recent years in that organizational culture stands out as a critical factor in the success of adopting and scaling agile. The three most significant challenges to agile adoption and scaling are reported as Organizational culture at odds with agile values (53%), General organizational resistance to change (46%), and Inadequate management support and sponsorship (42%).

Internal agile coaches (53%), consistent practices and processes across teams (43%), and the implementation of a common tool across teams (41%) are the top three factors reported to have been most helpful in scaling agile. These underscore the importance of a culture of excellence and alignment.



AGILE IS EXPANDING WITHIN THE ENTERPRISE

The survey provides indicators that agile adoption is growing within organizations, both more broadly and deeply. 25% of the respondents say that all or almost all of their teams are agile, whereas only 8% reported that in 2016. The application of agile techniques to higher-level planning also saw an increase, with more respondents practicing Product Roadmapping (46%) and Agile Portfolio Planning (35%).



CUSTOMER SATISFACTION IS OF UTMOST IMPORTANCE

One of the most notable changes from last year's survey is the importance of Customer/User Satisfaction in measuring success. While business value still ranks highly, Customer/User Satisfaction ranks as the top measure of success for agile initiatives (57%) and agile projects (46%). This change in the survey mirrors the growing emphasis on customer satisfaction in digital transformation initiatives.

LOOKING FORWARD

With the recognized necessity of accelerating the speed of delivery of high-quality software, and the emphasis on customer satisfaction, it's no surprise that 71% of the survey respondents report that a DevOps initiative is underway or planned for the next 12 months. We also expect the expansion of agility into higher-level planning to continue, as the need to manage the entire value stream, from strategic planning to customer delivery, will be critical going forward.

The need to manage the entire value stream, from strategic planning to customer delivery, and to have the proper feedback loops in place, will be critical going forward. This will require the organizational culture, skills, and tooling to allow for managing and measuring the flow of business value across the entire value stream. To achieve this, enterprises will need to truly unify their agile portfolio planning, agile project management, and continuous delivery efforts.

This will further decrease the use of spreadsheets and team-oriented point solutions as organizations seek a more enterprise-centric solution for unifying their Agile and DevOps initiatives and accelerating the delivery of business value across the entire organization.

TABLE OF CONTENTS

<p>SECTION</p> <h1>1</h1> <h2>RESPONDENT DEMOGRAPHICS</h2> <ul style="list-style-type: none"> Size of Organization 5 Size of Software Organization 5 Location of Organization 5 Role 6 Industry 6 Distributed Agile Teams 6 	<p>SECTION</p> <h1>2</h1> <h2>COMPANY EXPERIENCE AND ADOPTION</h2> <ul style="list-style-type: none"> Company Experience 7 Percentage of Teams Using Agile 7 Reasons for Adopting Agile 7 Agile Maturity 7
<p>SECTION</p> <h1>3</h1> <h2>BENEFITS OF AGILE</h2> <p>Benefits of Adopting Agile 8</p>	<p>SECTION</p> <h1>4</h1> <h2>AGILE METHODS AND PRACTICES</h2> <ul style="list-style-type: none"> Agile Methodology Used 9 Top 5 Agile Techniques 9 Agile Techniques Employed 9 Engineering Practices Employed 10 Agile in Outsourced Development Projects 10
<p>SECTION</p> <h1>5</h1> <h2>AGILE SUCCESS AND METRICS</h2> <ul style="list-style-type: none"> Success of Agile Projects 11 How Success Is Measured With Agile Initiatives 11 How Success Is Measured With Agile Projects 11 	<p>SECTION</p> <h1>6</h1> <h2>SCALING AGILE</h2> <ul style="list-style-type: none"> Scaling Methods and Approaches 12 Top 5 Tips for Success with Scaling Agile 12 Challenges Experienced Adopting & Scaling Agile 12
<p>SECTION</p> <h1>7</h1> <h2>AGILE PROJECT MANAGEMENT TOOLS</h2> <ul style="list-style-type: none"> General Tool Use and Preferences 13 Use of Agile Management Tools 14 Recommended Agile Project Management Tools 15 	<p>SECTION</p> <h1>8</h1> <h2>DEVOPS INITIATIVES</h2> <ul style="list-style-type: none"> DevOps Initiatives 16 How Success Is Measured With DevOps Initiatives 16 Value of Capability Improvement in DevOps Practice 16 Importance of DevOps Transformation 16

ABOUT THE SURVEY

The 12th annual State of Agile survey was conducted between August and December, 2017.

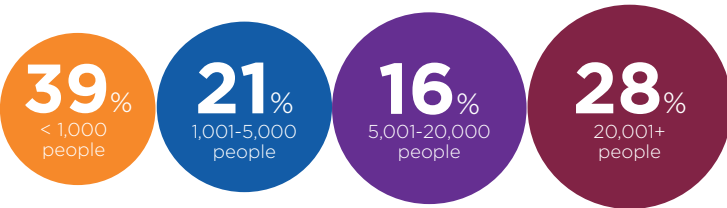
Sponsored by CollabNet VersionOne, the survey invited individuals from a broad range of industries in the global software development community and was promoted far beyond VersionOne's customer base at tradeshows and multiple digital channels. 1,492 responses were collected, analyzed, and prepared into a summary report by Analysis.Net Research, an independent survey consultancy. Only 22% of the respondents were 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 ScrumMaster or Internal Agile Coaches (19% of respondents last year and 34% this year) and a decrease in responses from Project / Program Managers (23% of respondents last year and 14% this year).

Size of Organization

Respondents who worked for organizations with:



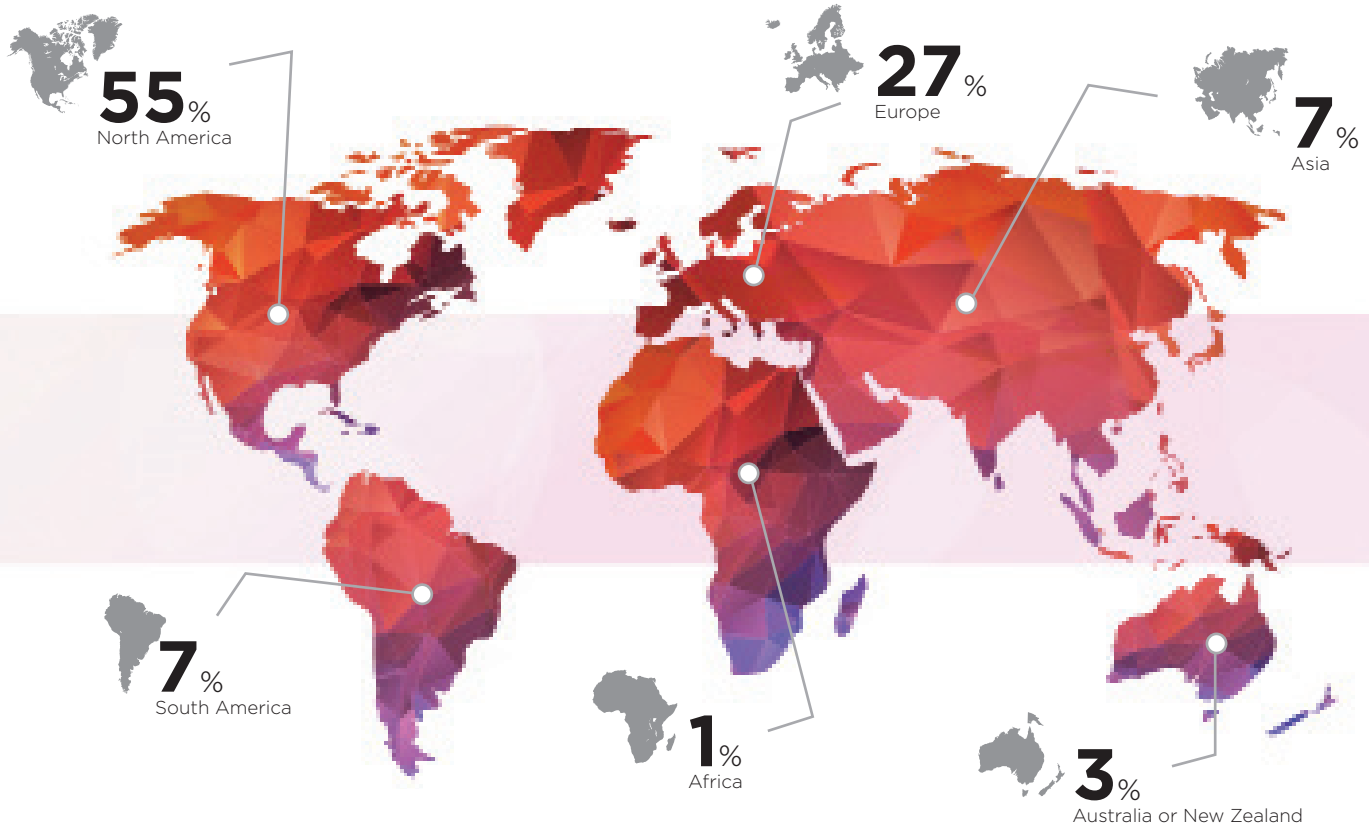
Size of Software Organization

Respondents who worked for organizations with software development organizations with:



Location of Organization

Respondents were from:

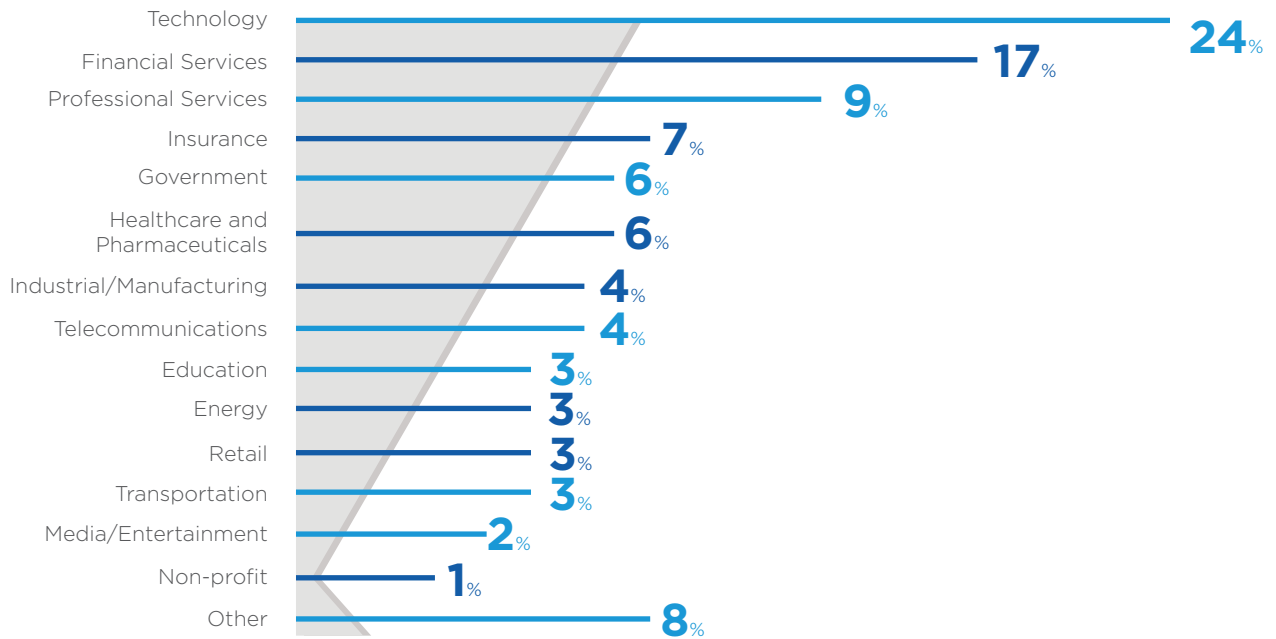


RESPONDENT DEMOGRAPHICS



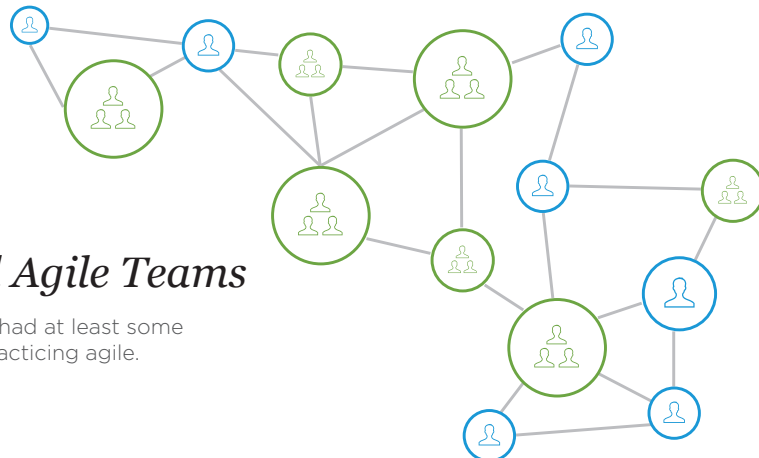
Industries

Industries respondents worked in:



Distributed Agile Teams

79% of respondents had at least some distributed teams practicing agile.



COMPANY EXPERIENCE AND ADOPTION

Company Experience

HOW MANY?

97%

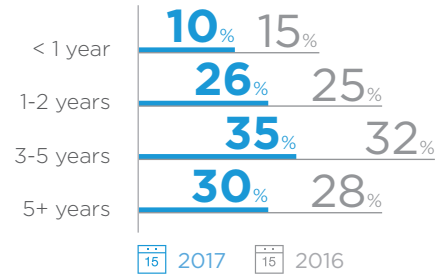
The percentage of respondents' organizations that practice agile development methods:



&

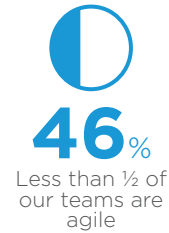
HOW LONG?

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



Percentage of Teams Using Agile

52% of respondents stated that more than half of teams in their organizations are using agile practices.



Reasons for Adopting Agile

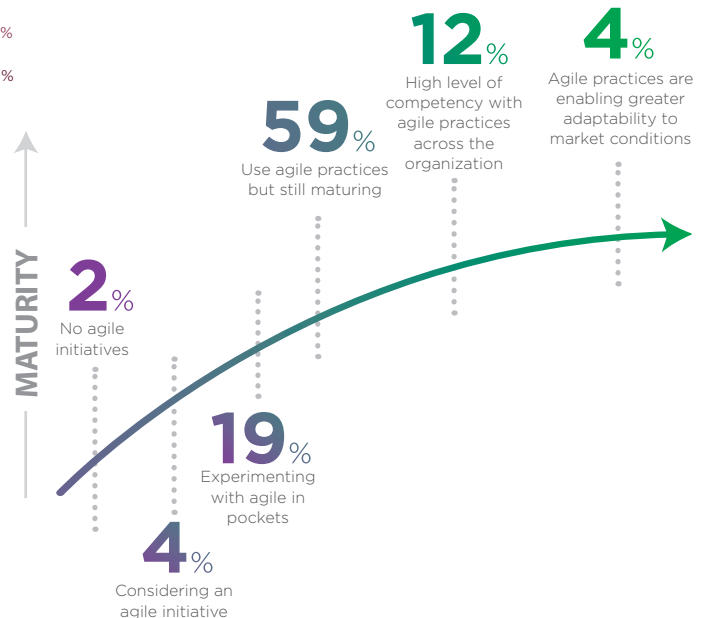
The reasons stated for adopting agile follow a similar ranking as in the previous year though we did see the biggest change in responses in accelerate software delivery (75% compared to 69% last year), enhancing delivery predictability (46% compared to 30% last year), improving IT/Business alignment (49% compared to 42% last year), and reducing project cost (24% compared to 18% last year).



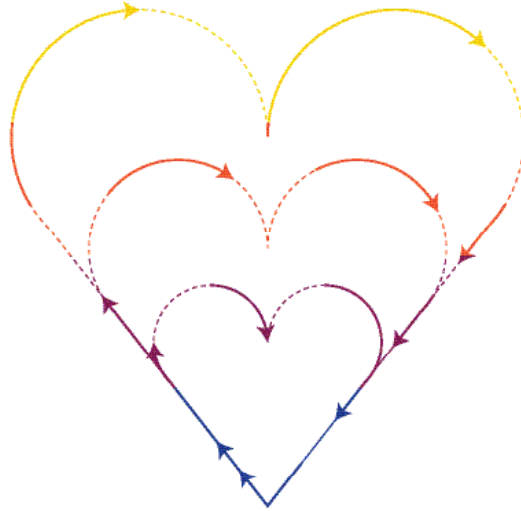
*Respondents were able to make multiple selections.

Agile Maturity

The vast majority of respondents (84%) said their organization was at or below a "still maturing" level.

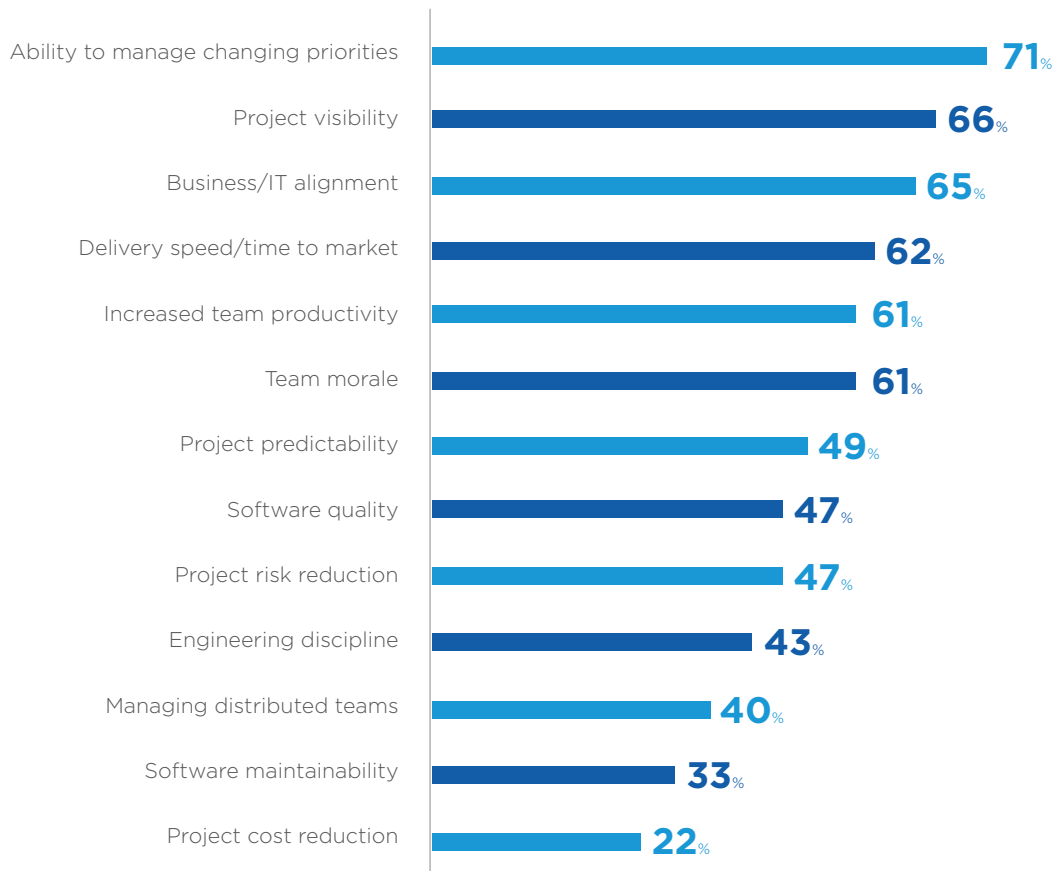


BENEFITS OF AGILE



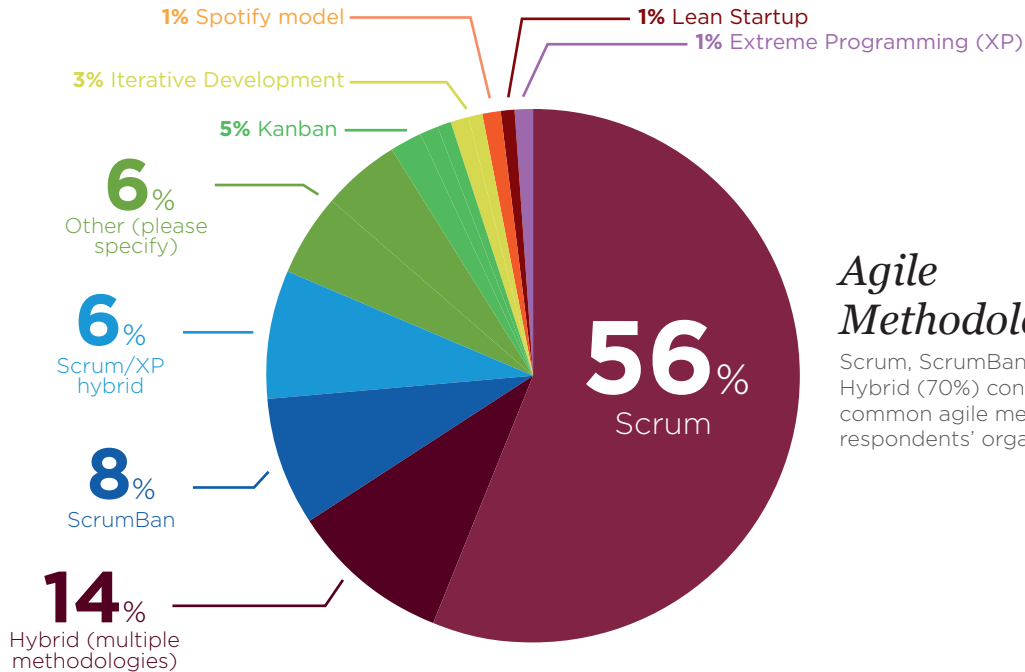
Benefits of Adopting Agile

By implementing agile, respondents cited seeing improvements in the following areas:



*Respondents were able to make multiple selections.

AGILE METHODS AND PRACTICES



Agile Methodologies Used

Scrum, ScrumBan and Scrum/XP Hybrid (70%) continue to be the most common agile methodologies used by respondents' organizations.

Agile Techniques Employed

From 2016 to 2017, the use of Kanban grew from 50% to 65%; product roadmapping increased from 38% to 46% and portfolio planning went from 25% to 35%.

TOP 5 AGILE TECHNIQUES



90%
DAILY STANDUP



88%
SPRINT/ITERATION PLANNING



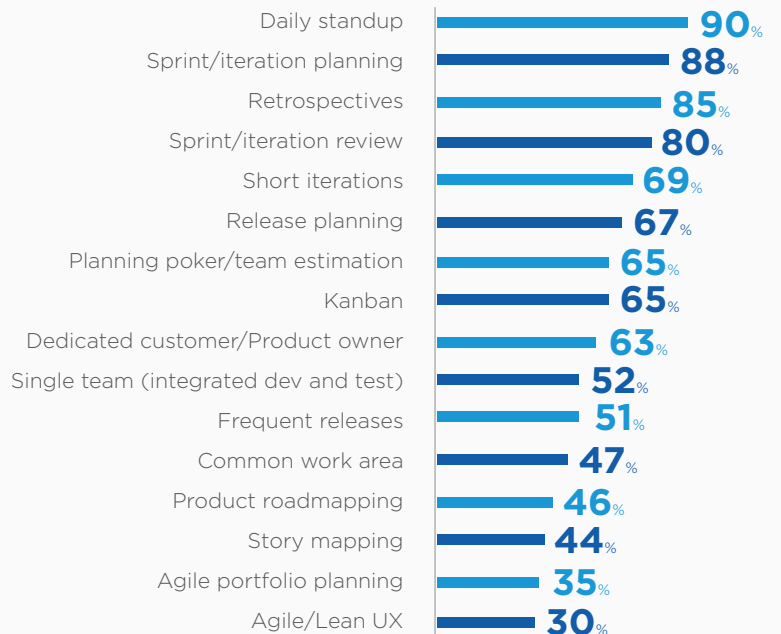
85%
RETROSPECTIVES



80%
SPRINT/ITERATION REVIEW



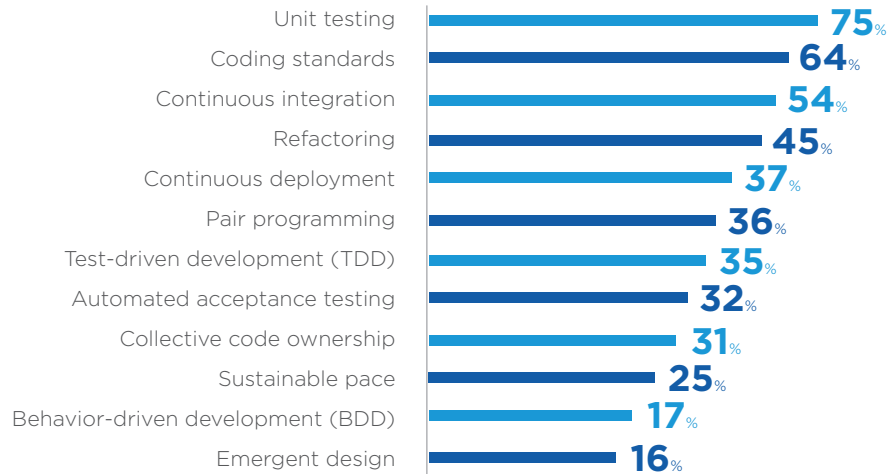
69%
SHORT ITERATIONS



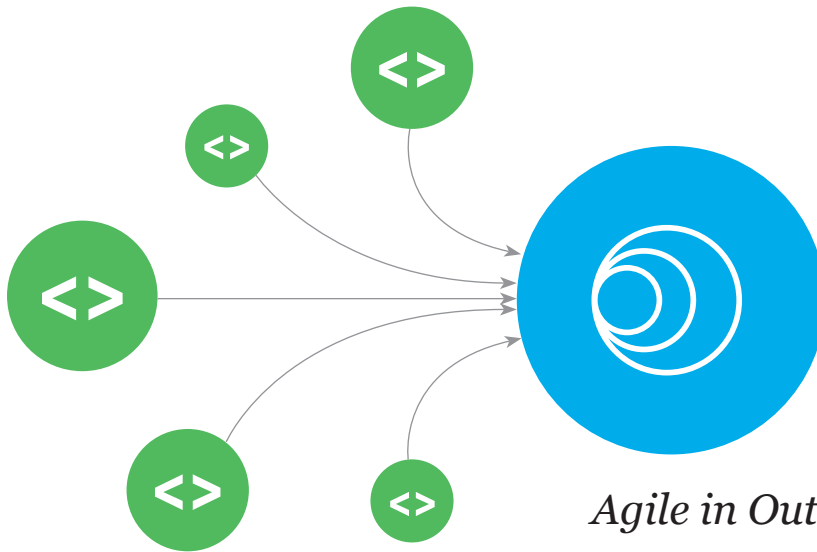
*Respondents were able to make multiple selections.

Engineering Practices Employed

This year's survey demonstrated an increased use of coding standards (64% compared to 56% last year) and the use of continuous integration and refactoring were cited less as practices used.



*Respondents were able to make multiple selections.



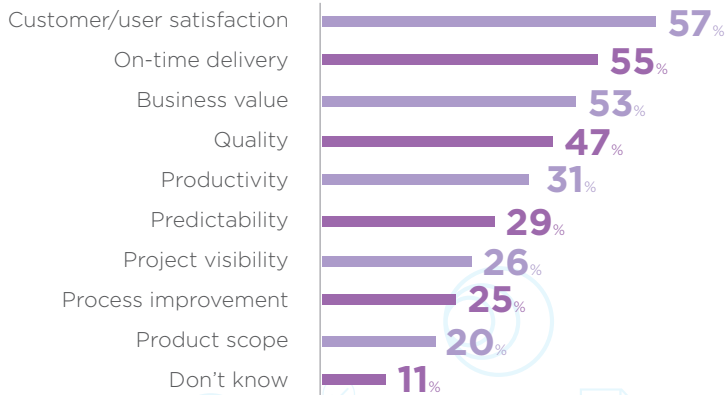
Agile in Outsourced Dev Projects

45% 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.

AGILE SUCCESS AND METRICS

How Success Is Measured... with Agile Initiatives?

Business value, on-time delivery of projects and customer/user satisfaction have remained the top three measures of agile initiative's success as they have in the past few years with customer/user satisfaction moving into the top spot increasing from 44% last year to 57% this year. Product scope saw a decline from 40% to 20% from 2016 to 2017.



*Respondents were able to make multiple selections.

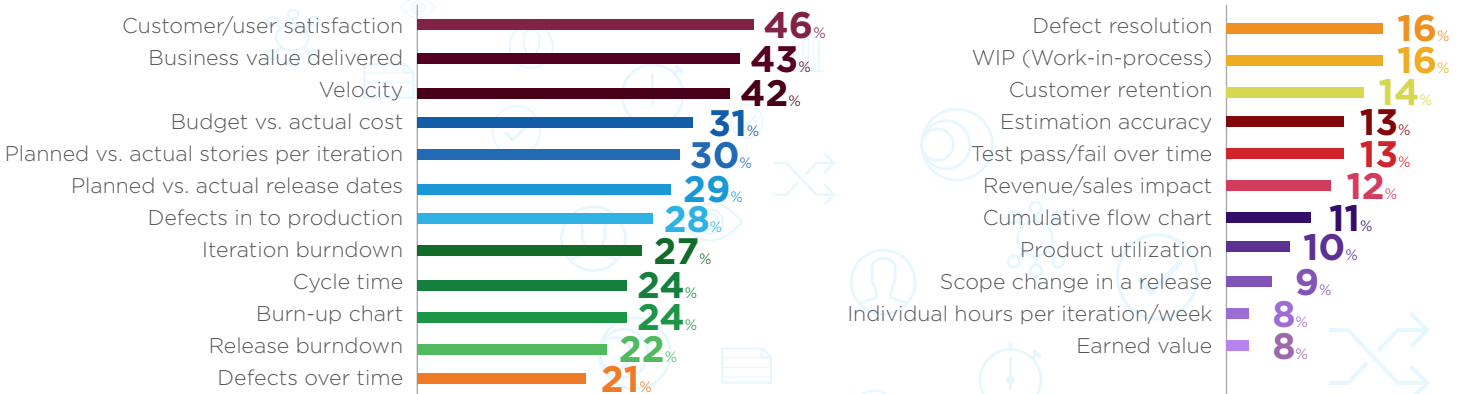
Success of Agile Projects

98%

of respondents said that they had success with agile projects in their organization. 74% indicated more than half of their agile projects had been successful.

How Success Is Measured... with Agile Projects

Business value increased as a cited measure of agile project success from 23% in 2016 to 43% in 2017. Customer/user satisfaction increased from 28% in 2016 to 46% in 2017 while velocity had been the number one measure of an agile project's success decreased from 67% in 2016 to 42% in 2017. Iteration burndown also went down from 2016 (51%) to 2017 (27%).

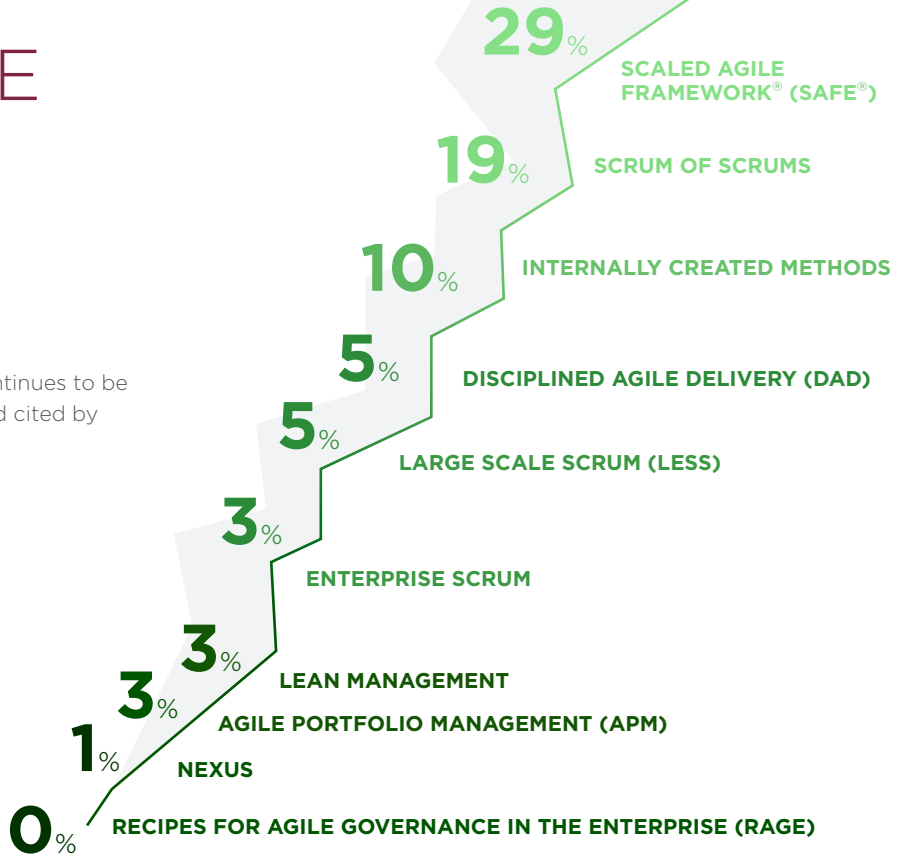


*Respondents were able to make multiple selections.

SCALING AGILE

Scaling Methods and Approaches

The Scaled Agile Framework continues to be the most popular scaling method cited by respondents.



Top 5 Tips for Success with Scaling Agile

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

- 1** INTERNAL AGILE COACHES
- 2** CONSISTENT PRACTICES AND PROCESSES ACROSS TEAMS
- 3** IMPLEMENTATION OF A COMMON TOOL ACROSS TEAMS
- 4** EXTERNAL AGILE CONSULTANTS OR TRAINERS
- 5** EXECUTIVE SPONSORSHIP

*Respondents were able to make multiple selections.

Challenges Experienced Adopting & Scaling Agile

From last year to this year we saw a decrease in respondents citing "organizational culture at odds with agile values" and "lack of business/customer/product owner availability" as challenges for adopting and scaling agile. Barriers that were cited more this year include "fragmented tooling", "inconsistent processes across teams" and "general resistance to change".



*Respondents were able to make multiple selections.

AGILE PROJECT MANAGEMENT TOOLS

General Tool Uses and Preferences

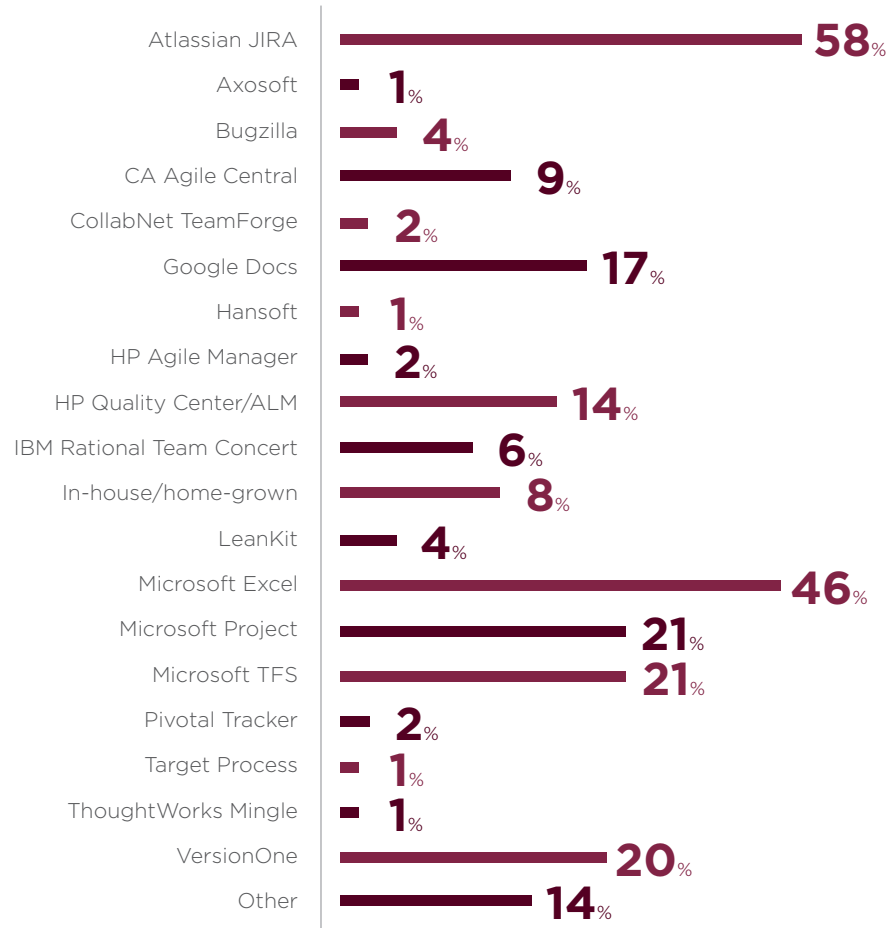
The use of Kanban boards again was cited as a tool used more than in the previous year as was Project & portfolio management (PPM) tools.

2017 2016

	CURRENT TOOL USAGE		FUTURE PLANS TO USE	
	2017	2016	2017	2016
Kanban board	74%	69%	7%	11%
Bug tracker	72%	71%	10%	10%
Taskboard	71%	75%	7%	8%
Agile project management tool	67%	63%	9%	17%
Spreadsheet	65%	67%	4%	5%
Wiki	62%	62%	11%	13%
Automated build tool	60%	59%	20%	22%
Unit test tool	57%	61%	15%	19%
Continuous integration tool	52%	52%	24%	27%
Requirements management tool	46%	43%	13%	19%
Release/deployment automation tool	44%	44%	29%	31%
Traditional project management tool	43%	43%	5%	5%
Project & portfolio management (PPM) tool	40%	35%	18%	25%
Automated acceptance tool	36%	35%	29%	36%
Index cards	29%	34%	7%	10%
Story mapping tool	29%	25%	19%	30%
Refactoring tool	19%	25%	15%	25%
Customer idea management tool	16%	16%	15%	26%

*Respondents were able to make multiple selections.

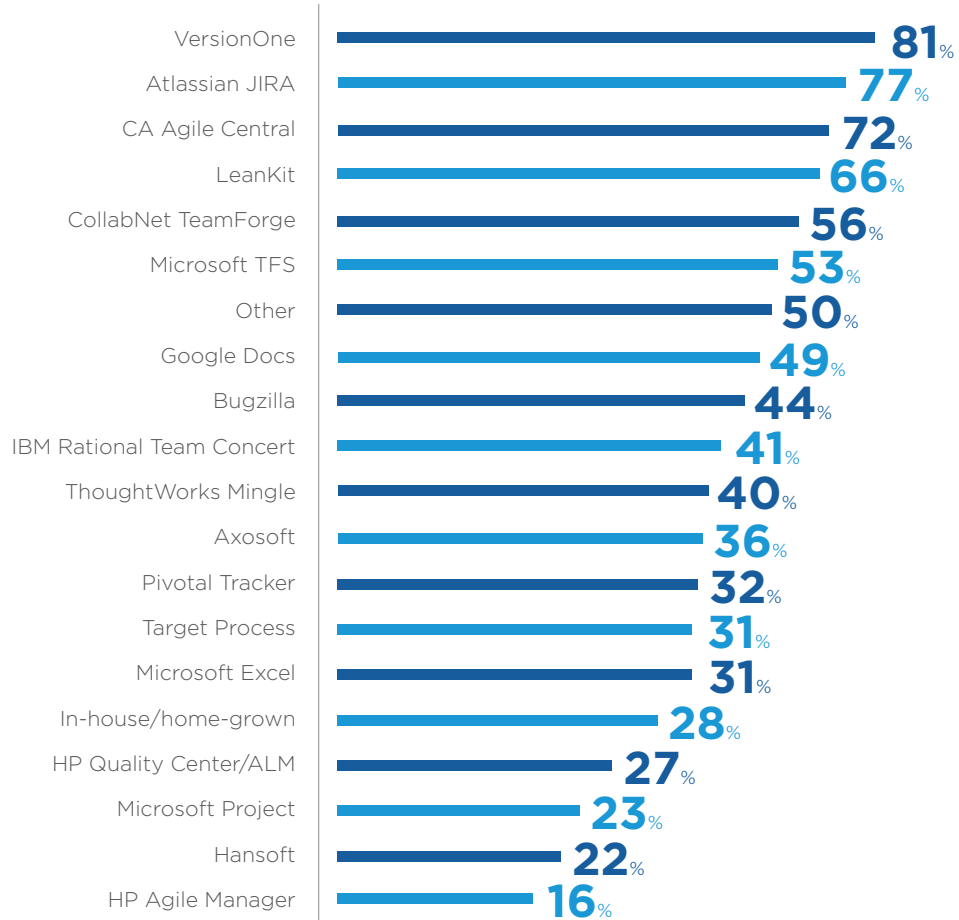
Use of Agile Management Tools



Respondents were able to make multiple selections.

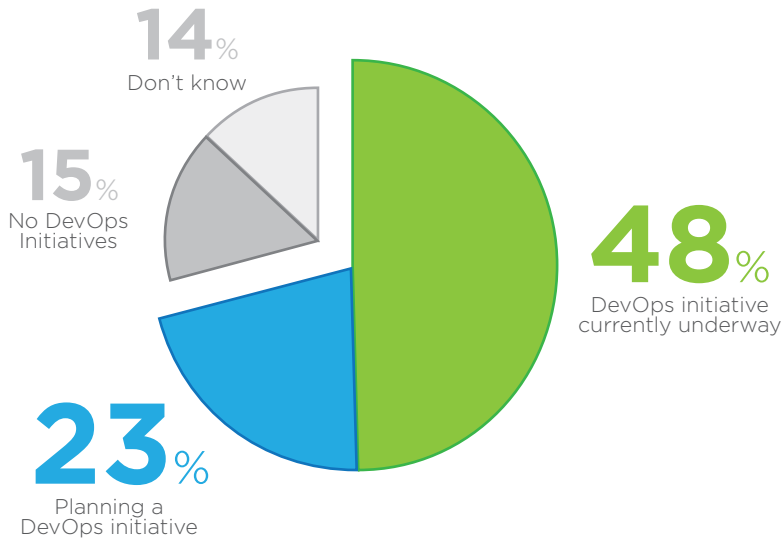
Recommended Agile Project Management Tools

Respondents were asked whether they would recommend the tool(s) they are using based on their experience. For the sixth year in a row, VersionOne had the highest recommendation rate of any other tool evaluated in the survey (81%).



Respondents were able to make multiple selections.

DEVOPS INITIATIVES

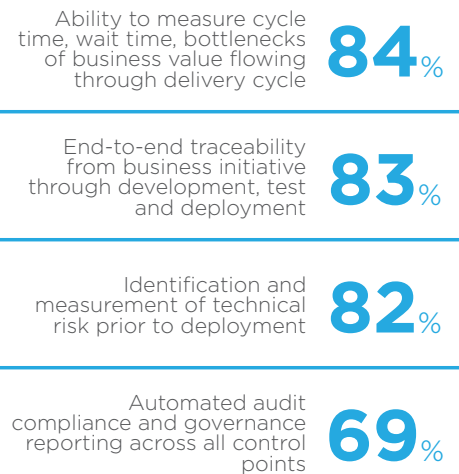


DevOps Initiatives

71% of respondents stated that they currently have a DevOps initiative in their organization or are planning one in the next 12 months.

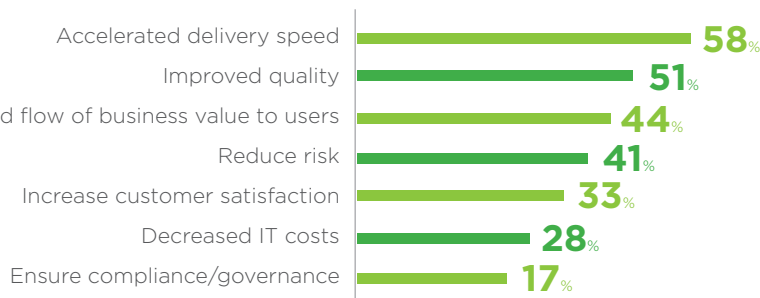
Value of Capability Improvement in DevOps Practice

Respondents said they would find it valuable or very valuable to experience improvements in the following capabilities in their DevOps practices:



How Success Is Measured... with DevOps Initiatives?

Respondents cited the top measures of success for their organization's DevOps initiatives were accelerated delivery speed, increased risk, flow of business value all the way to the end user and reduction of risk.



*Respondents were able to make multiple selections.

Importance of DevOps Transformation

65% of respondents said DevOps transformation was important or very important in their organization.

