

*the* **11** *th* annual  
**STATE OF AGILE™**  
**REPORT**

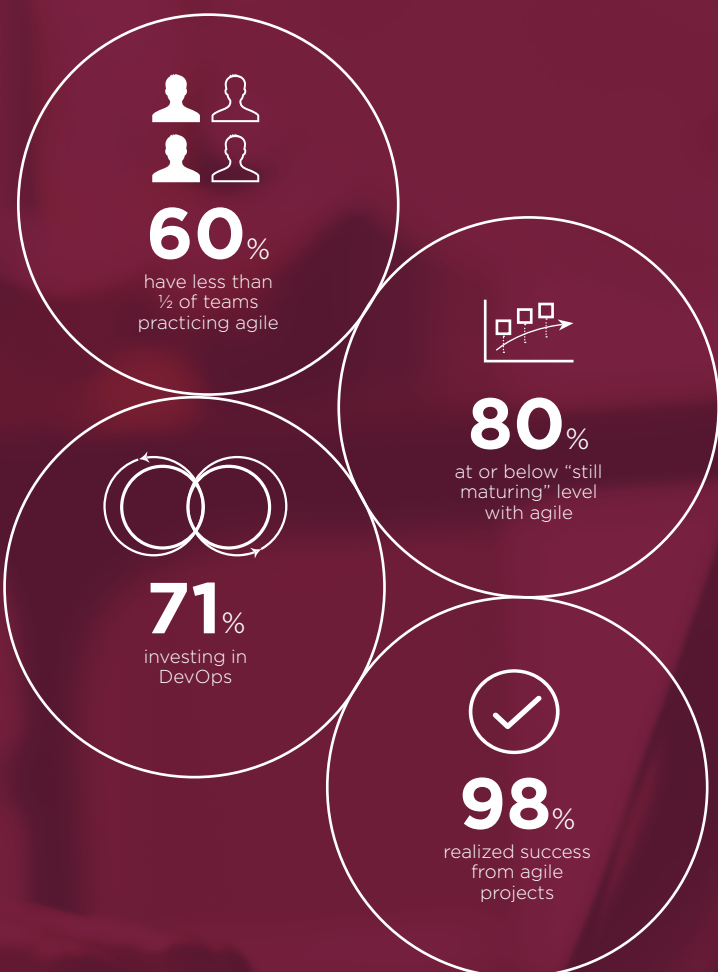
# EXECUTIVE SUMMARY

## AGILITY ACCELERATES THE DELIVERY OF BUSINESS VALUE

The 11th annual State of Agile™ survey found that **enterprise agility is increasing throughout organizations** and across almost all industries at an accelerated rate. For the first time, half of the survey respondents came from outside North America. While the largest number (23%) of respondents still worked for software companies, the number from non-software companies grew significantly in 2016. Respondents from very large organizations, employing more than 20,000 people, also increased.

However, the survey also highlights that there is **still a lot of opportunity for growth** and that the momentum is far from slowing. While 94% of respondents said their organizations practiced agile, they also stated that more than half (60%) of their organizations' teams are not yet practicing agile. Similarly, although 44% of respondents stated that they were extremely knowledgeable regarding agile development practices, 80% said their organization was at or below a "still maturing" level. Finally, the survey showed that many companies are now investing (71%) in DevOps.

Just as the survey made it clear that there are still opportunities for increasing enterprise agility, it also made clear that there are many reasons for improving agility. 98% of respondents said that their organization has realized success from agile projects. Respondents stated that the top benefits from adopting agile were accelerated delivery, better project visibility, improved team productivity, and management of changing priorities.



### Top 3 Benefits of Agile

Respondents continue to cite the same top three benefits of adopting agile for the sixth year in a row.



Ability to manage changing priorities



Increased team productivity



Improved project visibility

# EXECUTIVE SUMMARY

## AGILITY ACCELERATES THE DELIVERY OF BUSINESS VALUE

### ENTERPRISE AGILITY SUCCESS

With so much momentum and opportunity around agility, it is important to understand what the best organizations are doing to succeed. Executive sponsorship (48%), consistent process and practices (41%), implementation of a common tool across teams (36%), and agile consultants or trainers (36%) continue to be cited in the top five tips for successfully scaling agile.



### RECOMMENDED AGILE PROJECT MANAGEMENT TOOLS

This was the first year that more respondents cited using agile project management tools than spreadsheets. This is no doubt due to companies succeeding through implementing consistent processes, practices, and tools across teams. For the fifth year in a row, VersionOne had the highest recommendation rate of any other tool evaluated in the survey, even though only 20% or respondents used VersionOne.



### MEASURE ENTERPRISE AGILITY WITH BUSINESS VALUE

One of the most notable trends from the survey is the importance of measuring how much business value your organization is delivering. This year business value has become a much more popular measure of an agile initiative's success.

Business value was cited as the second most popular measure (46%) of an agile initiative's success, rising from fourth in the prior year. Conversely, it ranked as the eleventh most popular measure (23%) on a day-to-day basis. This highlights an important inconsistency between how more strategic areas of the enterprise are measuring success and how success is being measured at the team level.



### LOOKING FORWARD

As more organizations' enterprise agile initiatives mature, the need for consistent processes and tools for managing and measuring the flow of business value across the entire value stream will become critical (or similar). 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"> <li>Size of Organization 5</li> <li>Size of Software Organization 5</li> <li>Location of Organization 5</li> <li>Role 6</li> <li>Industries 6</li> <li>Distributed Agile Teams 6</li> </ul>	<p>SECTION</p> <h1>2</h1> <h2>COMPANY EXPERIENCE AND ADOPTION</h2> <ul style="list-style-type: none"> <li>Personal Experience with Agile Development Practices 7</li> <li>Company Experience 7</li> <li>Percentage of Teams Using Agile DevOps Initiative 7</li> <li>Reasons for Adopting Agile 8</li> <li>Agile Maturity 8</li> </ul>
<p>SECTION</p> <h1>3</h1> <h2>BENEFITS OF AGILE</h2> <p>Benefits of Adopting Agile 9</p>	<p>SECTION</p> <h1>4</h1> <h2>AGILE METHODS AND PRACTICES</h2> <ul style="list-style-type: none"> <li>Agile Methodology Used 10</li> <li>Top 5 Agile Techniques 10</li> <li>Agile Techniques Employed 10</li> <li>Epic Estimation Unit of Measure 11</li> <li>Engineering Practices Employed 11</li> <li>Agile in Outsourced Development Projects 11</li> </ul>
<p>SECTION</p> <h1>5</h1> <h2>AGILE SUCCESS AND METRICS</h2> <ul style="list-style-type: none"> <li>Success of Agile Projects 12</li> <li>Challenges Experienced Adopting &amp; Scaling Agile 12</li> <li>How Success Is Measured With Agile Initiatives 13</li> <li>How Success Is Measured With Agile Projects 13</li> </ul>	<p>SECTION</p> <h1>6</h1> <h2>SCALING AGILE</h2> <ul style="list-style-type: none"> <li>Scaling Methods and Approaches 14</li> <li>Top 5 Tips for Success with Scaling Agile 14</li> </ul>
<p>SECTION</p> <h1>7</h1> <h2>AGILE PROJECT MANAGEMENT TOOLS</h2> <ul style="list-style-type: none"> <li>General Tool Use and Preferences 15</li> <li>Use of Agile Management Tools 16</li> <li>Recommended Agile Project Management Tools 17</li> </ul>	

## ABOUT THE SURVEY

The 11<sup>th</sup> annual State of Agile survey was conducted between July and December, 2016.

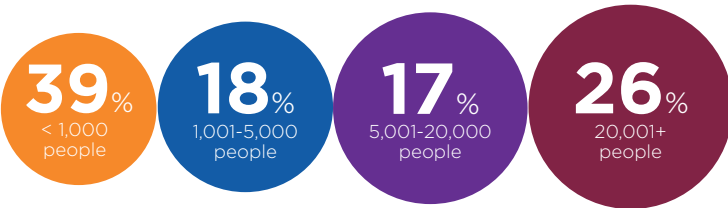
Sponsored by VersionOne, the survey invited individuals from a broad range of industries in the global software development community and was promoted far beyond VersionOne's customer base at tradeshows and multiple digital channels. Thousands of responses were collected, analyzed, and prepared into a summary report by Analysis.Net Research, an independent survey consultancy. Only 20% of the respondents were VersionOne customers, indicating the range and diversity of respondents.

# RESPONDENT DEMOGRAPHICS

For the first time, half of the respondents were from outside North America. While the largest number of respondents (23%) worked for software/ISV companies, that number declined from 26% last year. Respondents from very large organizations, employing more than 20,000 people, increased from 24% last year to 26% this year.

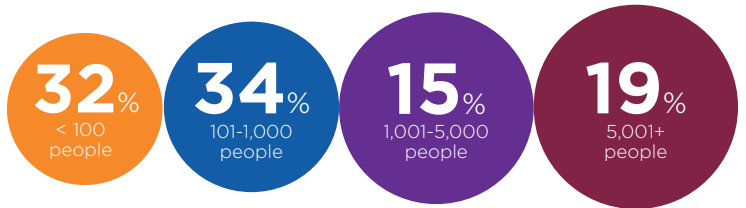
## Size of Organization

Respondents who worked for organizations with:



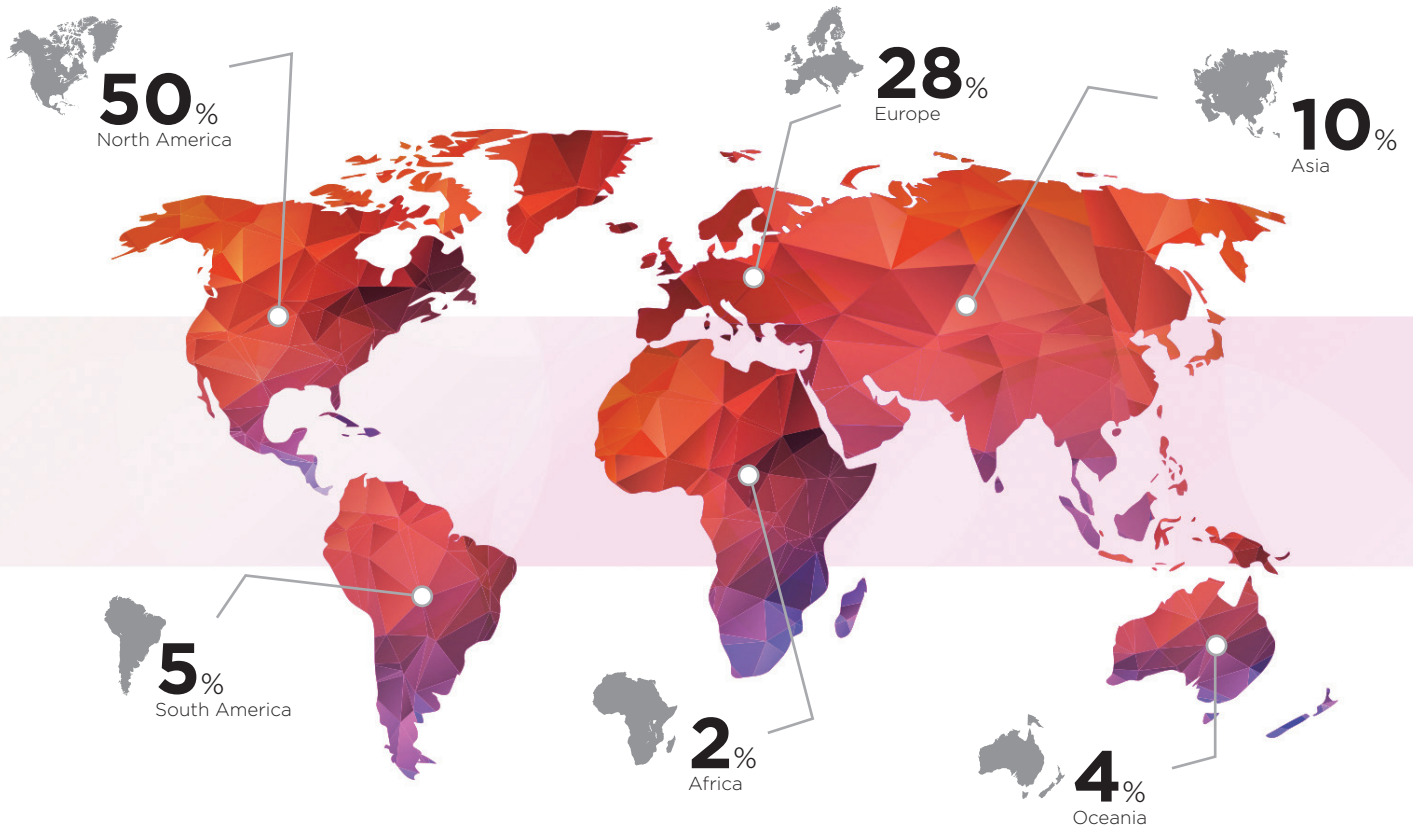
## Size of Software Organization

Respondents who worked for organizations with software groups with:

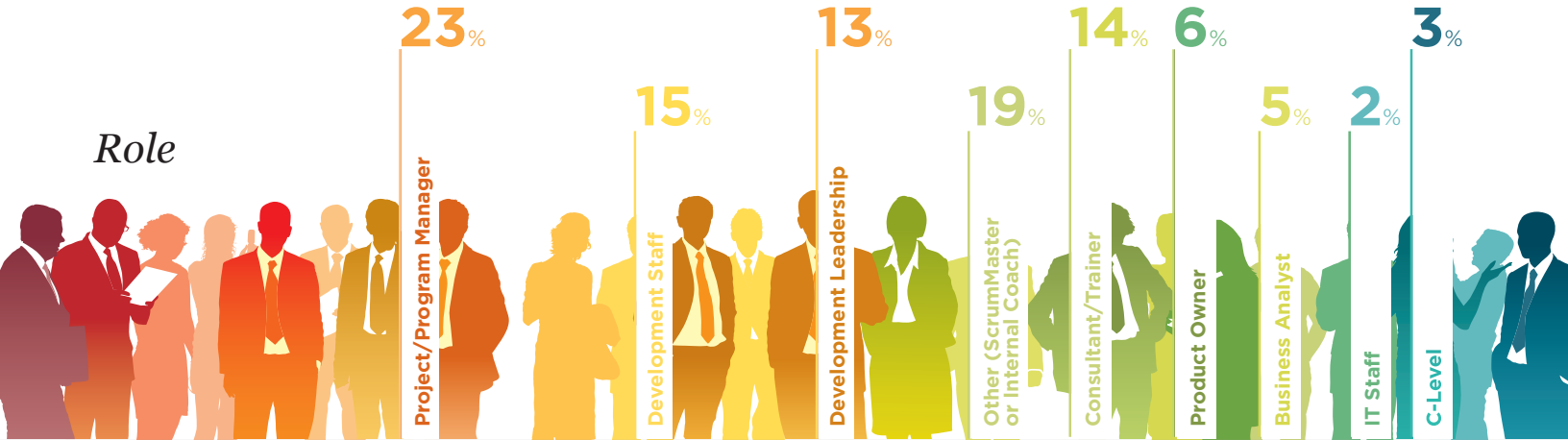


## Location of Organization

Respondents were from:

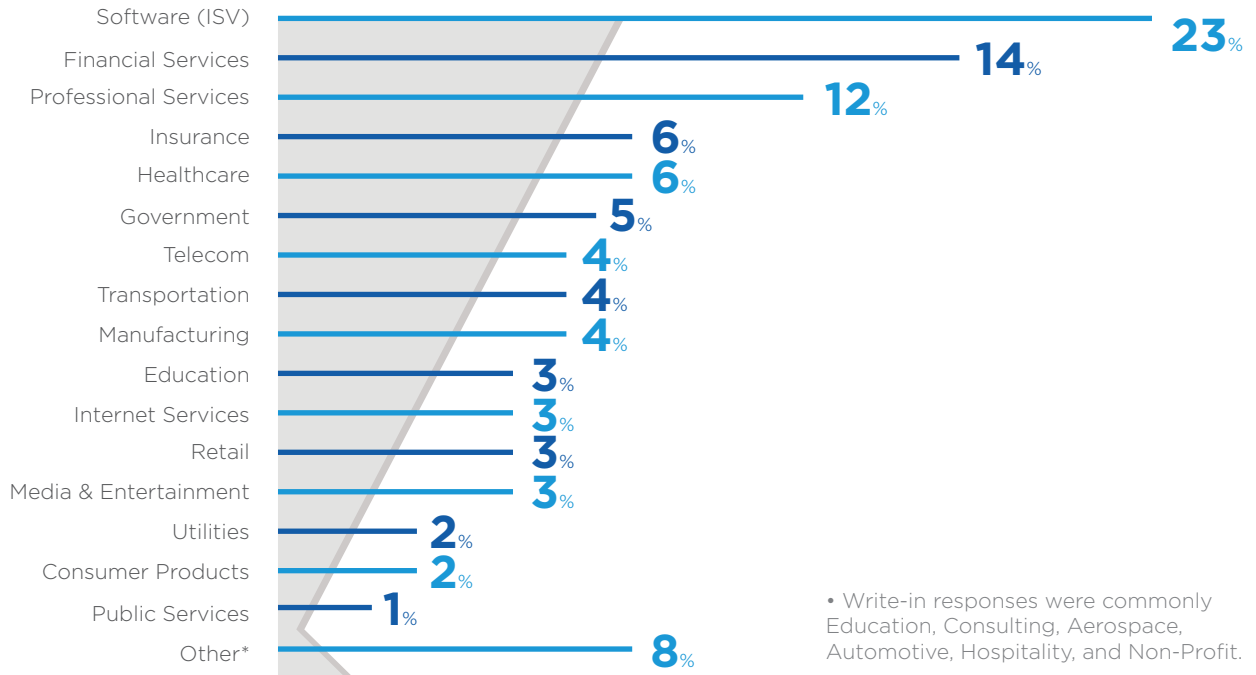


## RESPONDENT DEMOGRAPHICS



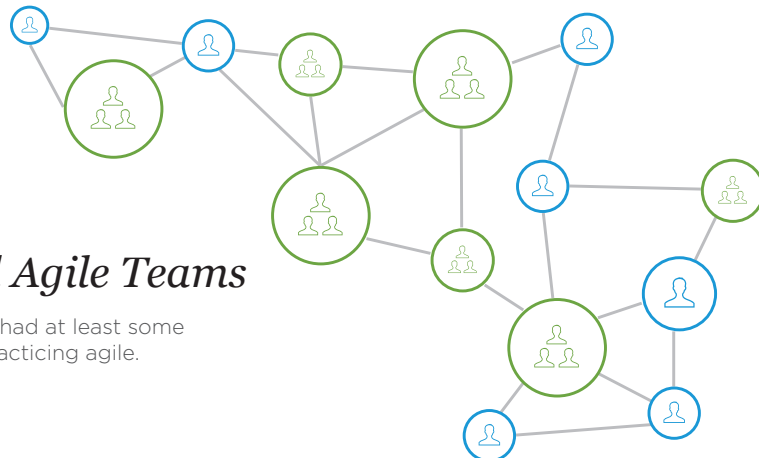
### Industries

Industries respondents worked in:



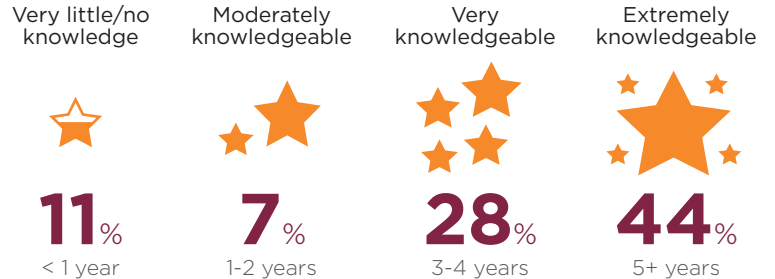
### Distributed Agile Teams

86% of respondents had at least some distributed teams practicing agile.



# COMPANY EXPERIENCE AND ADOPTION

## Personal Experience with Agile Development Practices



## Company Experience

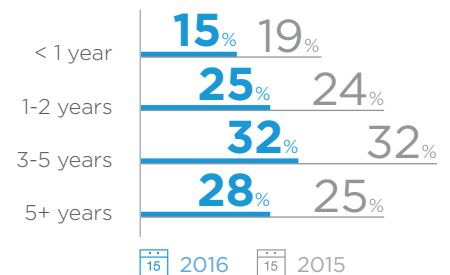
### HOW MANY?

2016 **94%**  
The percentage of respondents' organizations that practice agile



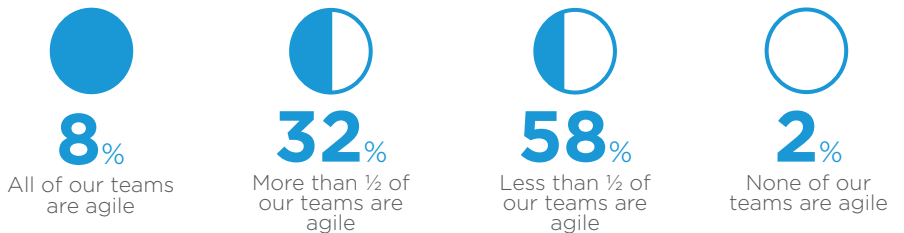
### HOW LONG?

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



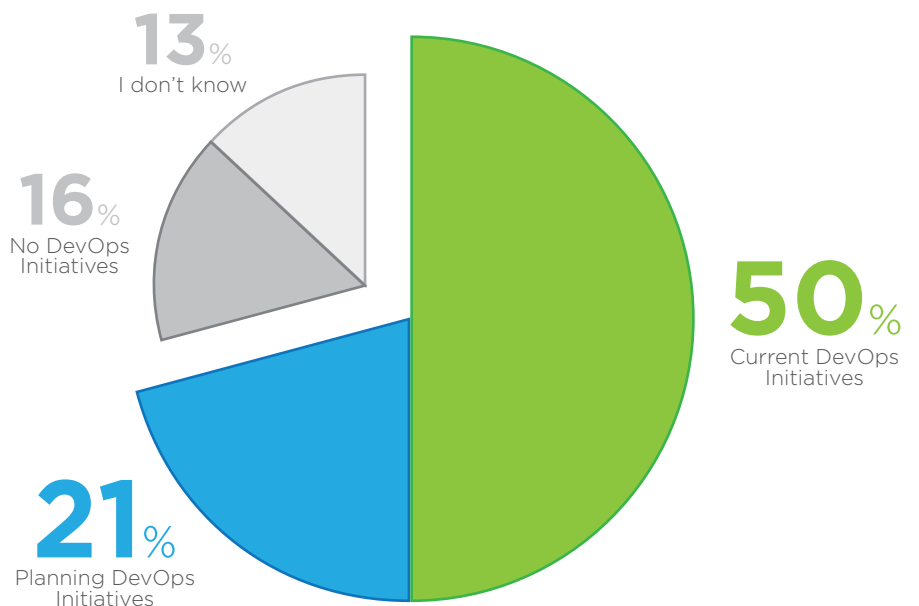
## Percentage of Teams Using Agile

60% of respondents stated less than half of teams in their organizations are using agile practices.



## 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.





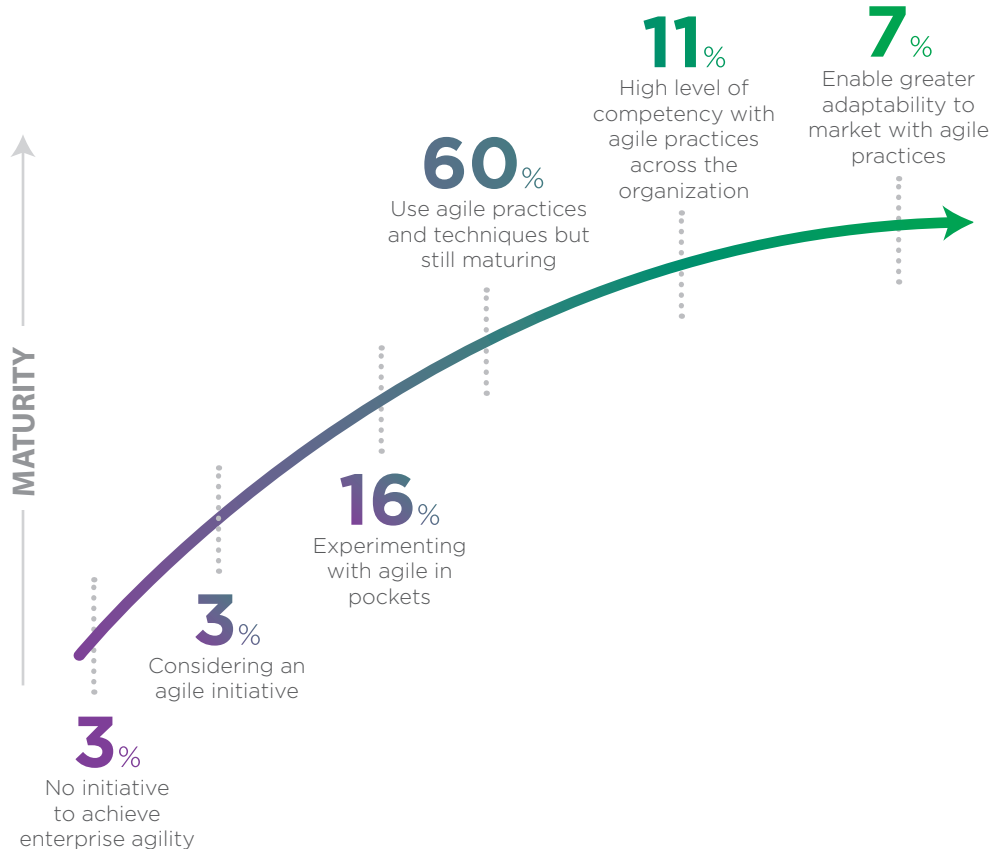
## Reasons for Adopting Agile

Improving project visibility (43%) moved up three places to become the fourth most popular reason stated for adopting agile this year and accelerating product delivery increased from 62% last year to 69% this year.

\*Respondents were able to make multiple selections.

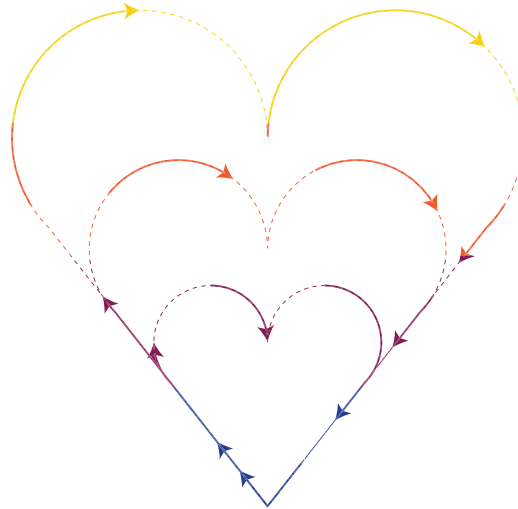
## Agile Maturity

The vast majority of respondents (80%) said their organization was at or below a "still maturing" level.

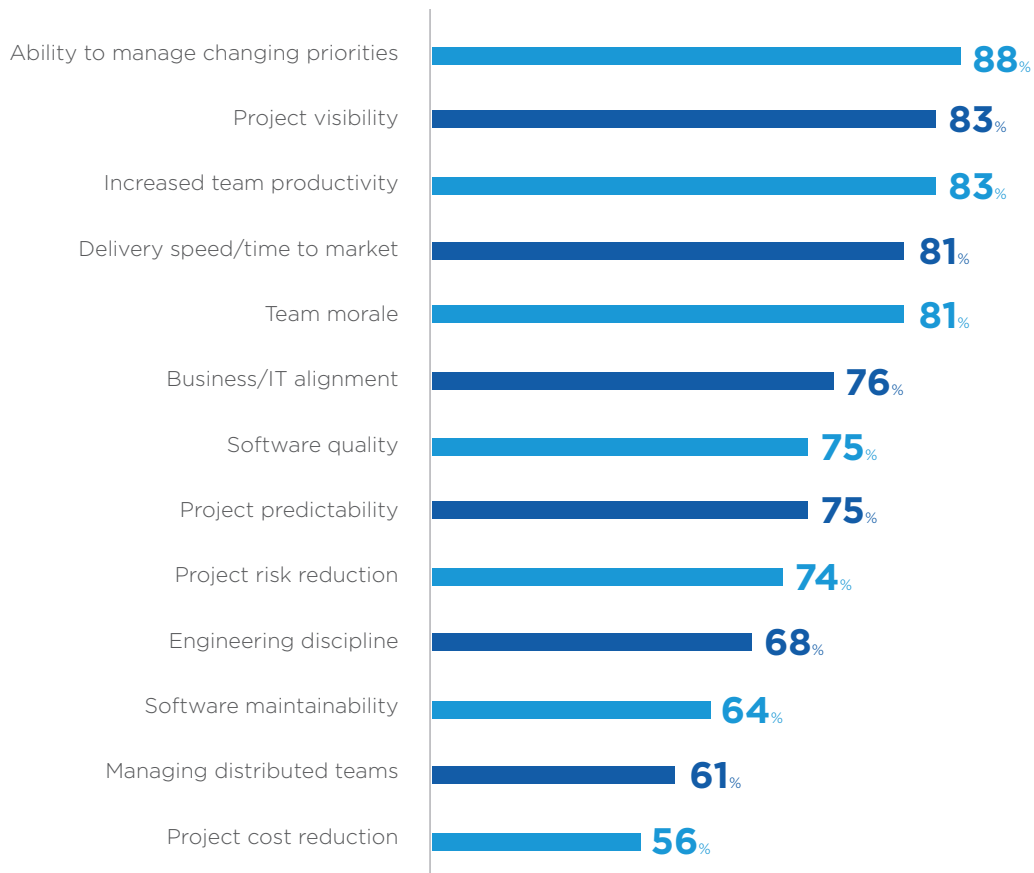




# BENEFITS OF AGILE

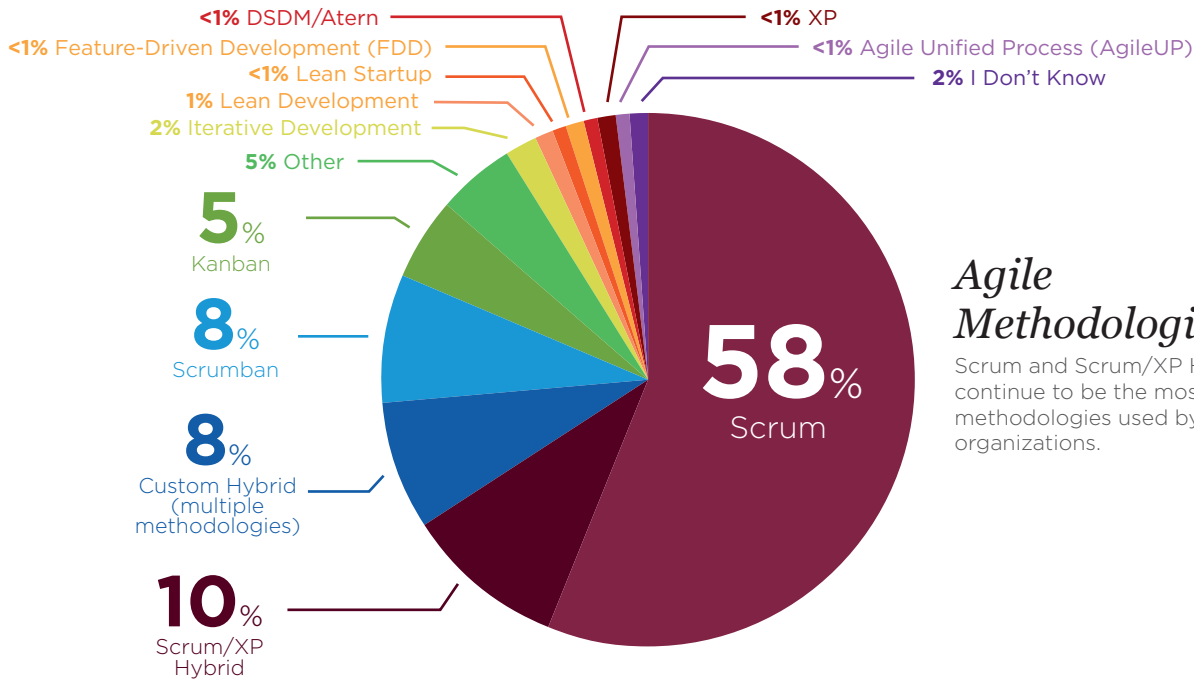


## *Benefits of Adopting Agile*



\*Respondents were able to make multiple selections.

# AGILE METHODS AND PRACTICES



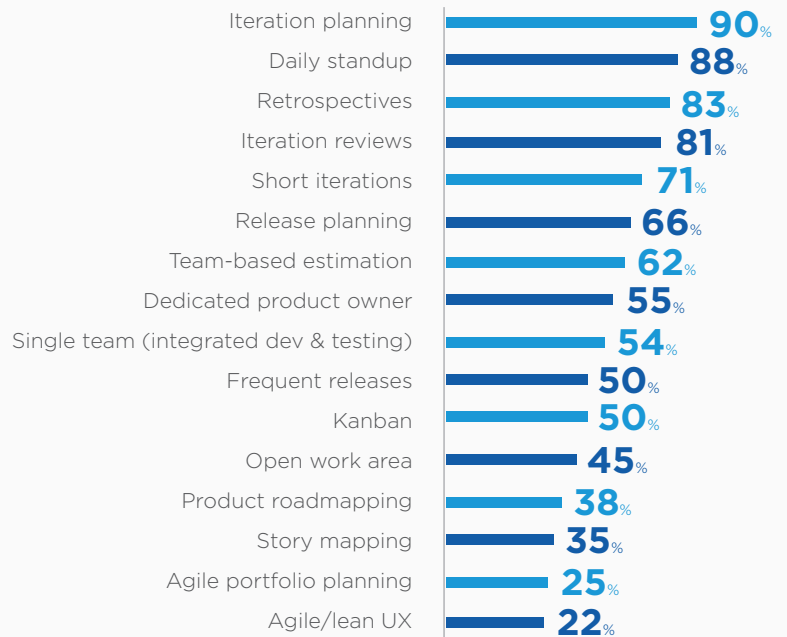
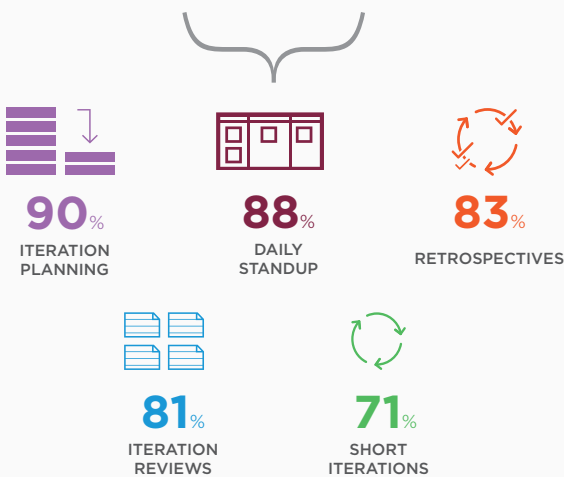
## Agile Methodologies Used

Scrum and Scrum/XP Hybrid (68%) continue to be the most common agile methodologies used by respondents' organizations.

## Agile Techniques Employed

From 2015 to 2016, the use of Kanban grew from 39% to 50%; iteration reviews increased from 54% to 81% and iteration planning went from 69% to 90%.

### TOP 5 AGILE TECHNIQUES



\*Respondents were able to make multiple selections.

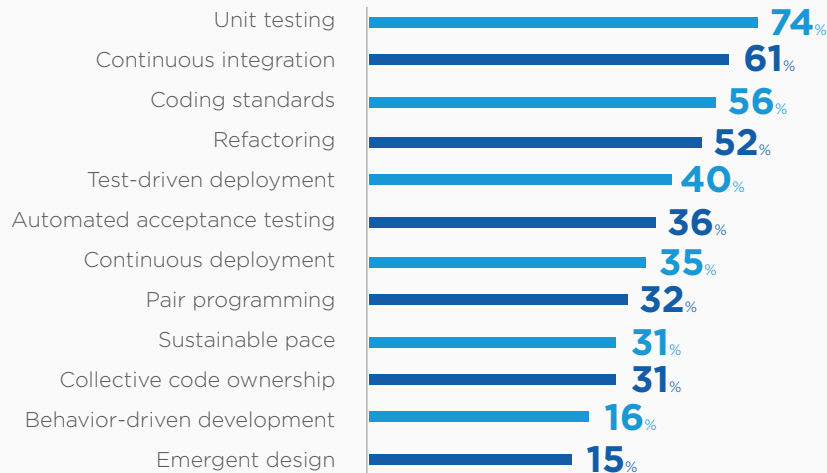
## Epic Estimation Unit of Measure

When conducting epic estimation, more than half of respondents said they used a point system.

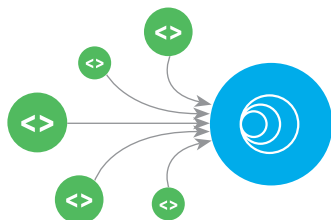


## Engineering Practices Employed

While the usage of XP as an independent methodology continues to decrease (<1%), the practices associated with XP are still prevalent.



\*Respondents were able to make multiple selections.



## Agile in Outsourced Dev Projects

51% of respondents are using agile practices to manage outsourced development projects. Respondents were twice as likely to say that the use of agile within their outsourced projects was going to increase in the future.

# AGILE SUCCESS AND METRICS



## *Challenges Experienced Adopting & Scaling Agile*

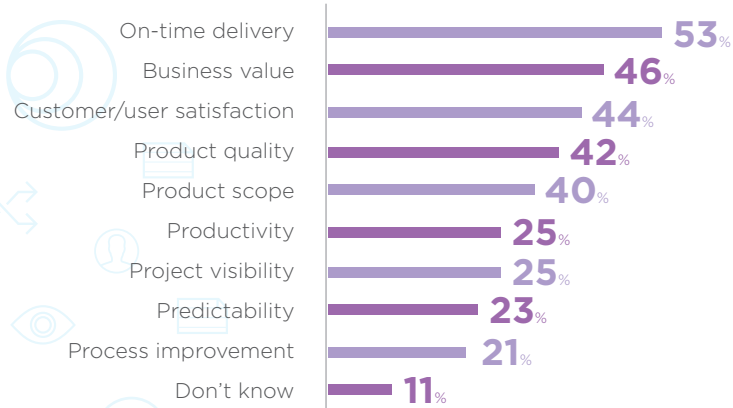
While the vast majority of respondents and their organizations have realized success from adopting agile practices, they recognize that there are challenges to scaling agile. The top two challenges cited were organizational culture at odds with agile values (63%), and lack of skills or experience with agile methods (47%).



\*Respondents were able to make multiple selections.

## How Success Is Measured... with Agile Initiatives?

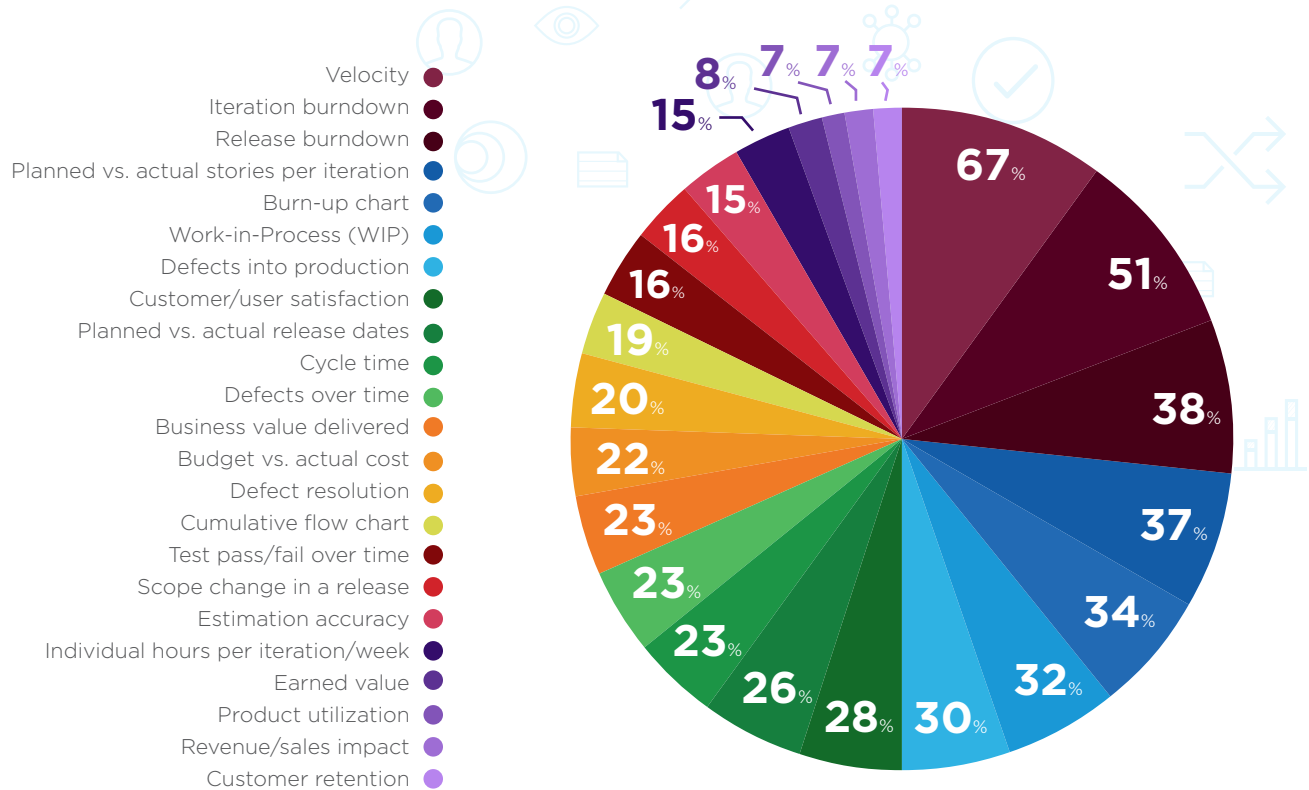
Business value as a measure of an agile initiative's success went from fourth in 2015 to second in 2016. On-time delivery of projects and customer/user satisfaction remained in the top three measures of agile initiative's success as they have in the past few years.



\*Respondents were able to make multiple selections.

## How Success Is Measured... with Agile Projects

While business value was cited as the second most popular measure (46%) of an agile initiative's success, it ranked as the eleventh most popular measure (23%) of an agile project's success. Velocity (67%) continues to be the number one measure of an agile project's success.

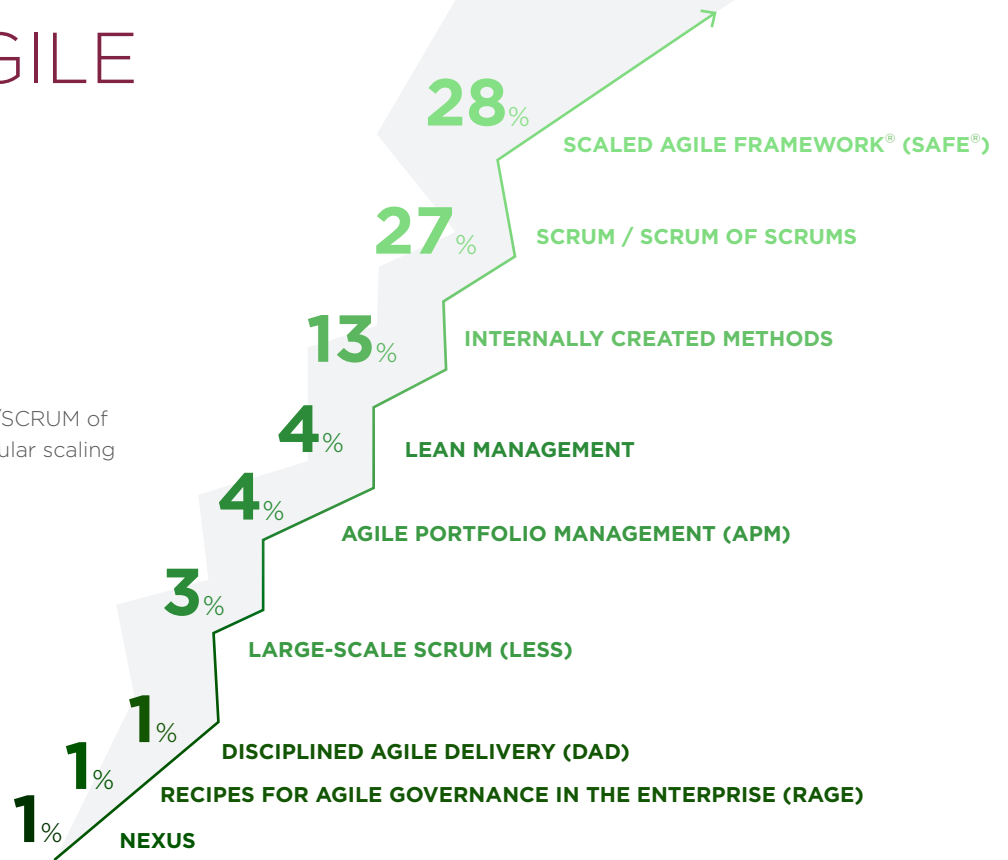


\*Respondents were able to make multiple selections.

# SCALING AGILE

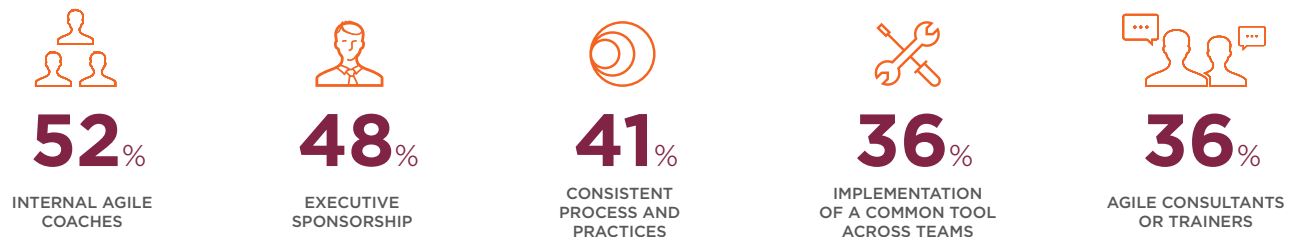
## Scaling Methods and Approaches

SAFe (28%) has overtaken SCRUM/SCRUM of SCRUMS (27%) to be the most popular scaling method cited by respondents.



## Top 5 Tips for Success with Scaling Agile

Executive sponsorship (48%), consistent process and practices (41%), implementation of a common tool across teams (36%), and agile consultants or trainers (36%) continue to be cited in the top five tips for successfully scaling agile for the past few years and likely points to the long-term importance of self-sufficiency when scaling agility. The top cited tip this year, internal agile coaches (52%), was a new entry into the top five.



Other important factors included: externally attended classes or workshops, company-provided training program, online training, and webinars.

\*Respondents were able to make multiple selections.

# AGILE PROJECT MANAGEMENT TOOLS

## General Tool Uses and Preferences

More than three-quarters of respondents are currently using a taskboard. Notable changes in tool use from 2015 to 2016 were Kanban boards (+6% YOY) and spreadsheets (-7% YOY).

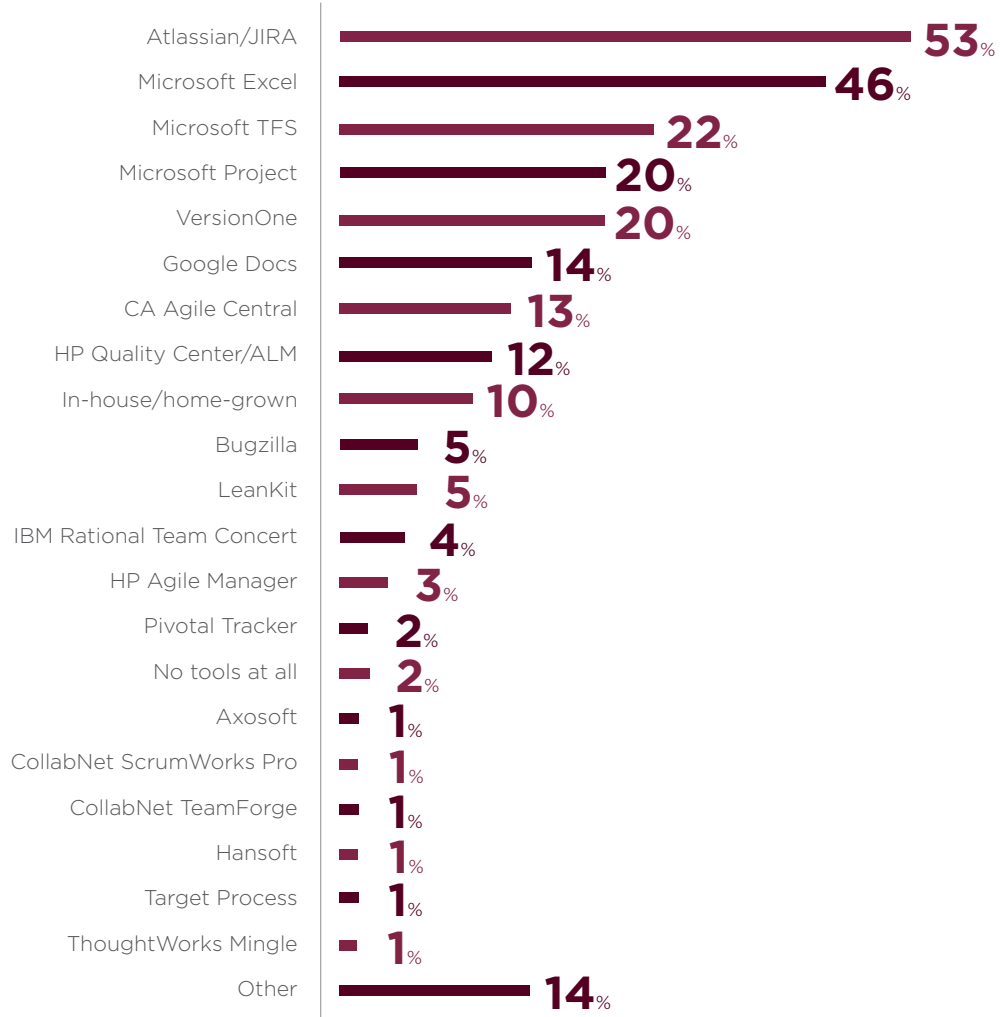
2016 2015

	CURRENT TOOL USAGE		FUTURE PLANS TO USE	
	2016	2015	2016	2015
Taskboard	75%	82%	8%	10%
Bug tracker	71%	80%	10%	10%
Kanban board	69%	63%	11%	13%
Spreadsheet	67%	74%	5%	5%
Agile project management tool	63%	71%	17%	17%
Wiki	62%	68%	13%	12%
Unit test tool	61%	66%	19%	23%
Automated build tool	59%	66%	22%	22%
Continuous integration tool	52%	57%	27%	28%
Release/deployment automation tool	44%	50%	31%	34%
Requirements management tool	43%	51%	19%	22%
Traditional project management tool	43%	51%	5%	7%
Project & portfolio management (PPM) tool	35%	42%	25%	27%
Automated acceptance tool	35%	38%	36%	41%
Index cards	34%	43%	10%	11%
Story mapping tool	25%	33%	30%	32%
Refactoring tool	25%	30%	25%	30%
Customer idea management tool	16%	21%	26%	30%

\*Respondents were able to make multiple selections.

## Use of Agile Management Tools

Fewer respondents cited using Microsoft® Excel this year (46%) then last year (60%) and Google Docs dropped from (18%) last year to (14%) this year.

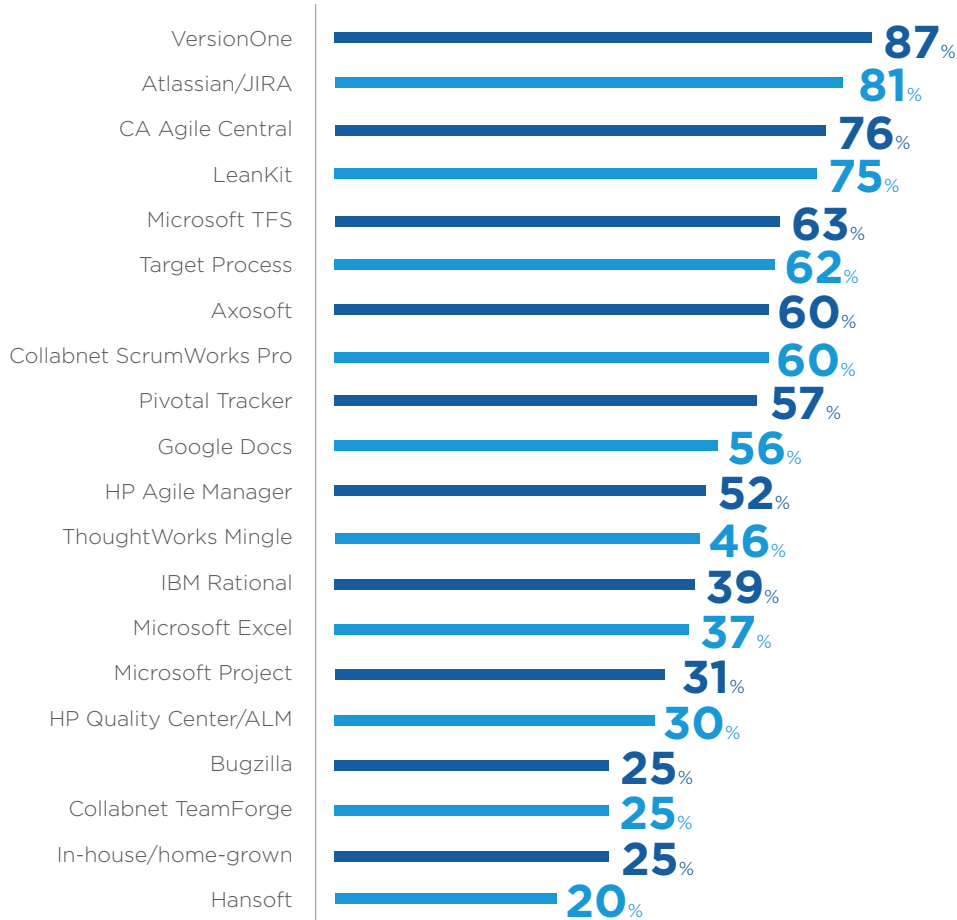


Respondents were able to make multiple selections.



## *Recommended Agile Project Management Tools*

Respondents were asked whether they would recommend the tool(s) they are using based on their past or present use. For the fifth year in a row, VersionOne had the highest recommendation rate of any other tool evaluated in the survey (87%).



Respondents were able to make multiple selections.