VERSIONONE®
Agile Made Easier

9TH ANNUAL

State of Agile™ Survey

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Executive Summary

AGILE MOMENTUM CONTINUES

Agile development—once a predominantly team-based practice—is grabbing the attention of the business. This year's State of Agile™ survey found that more companies—and bigger companies—are scaling and embracing agile as part of the larger vision to deliver software faster, easier, and smarter.

Ninety-four percent (**94%**) of all organizations surveyed now practice agile. In 2013, the majority of respondents had fewer than 1,000 people in their software organization. But in 2014, approximately **35%** of respondents had more than 5,000 people in their organization, and **20%** worked in very large organizations with more than 20,000 people.

In addition, **45%** of this year's respondents worked in development organizations where the majority of their teams are agile. Contrast this with the 2009 report, which found that (**31%**) of the respondents worked in organizations with only zero to two teams practicing agile.

Agile is spreading geographically, too. From 2012 to 2014, the percentage of respondents who had distributed teams practicing agile jumped from **35%** to **80%**.

BENEFITS OF AGILE

There is plenty of evidence to conclude that agile works. For four years running, the top three benefits of agile development remain:

1. **Ability to manage changing priorities (87%)**
2. **Team productivity (84%)**
3. **Project visibility (82%)**

Furthermore, **53%** of respondents said that the majority, if not all, of their agile projects have been successful.

When asked what causes agile to fail, respondents pointed to lack of experience with agile methods (**44%**).

MEASURING AGILE SUCCESS

We asked several new questions this year to find out how organizations measure the success of agile, both on a day-to-day basis and for their agile initiatives overall. At the project level, most respondents tracked velocity, iteration burndown and release burndown. The value of agile overall was measured primarily by on-time delivery, product quality, and customer/user satisfaction metrics.

SCALING METHODOLOGIES AND TIPS FOR SUCCESS

With more energy put into scaling agile across the enterprise, the 2014 survey results showed more interest in the various scaling methodologies such as the Scaled Agile Framework® (SAFe®), Large-Scale Scrum (LeSS), Disciplined Agile Delivery (DAD), Scrum of Scrums, Agile Portfolio Management (APM) and others. Which were the preferred scaling methodologies of the year? The overwhelming response was Scrum of Scrums (**69%**), followed by internal methods (**25%**), SAFe (**19%**), and Lean (**18%**).

According to the data, the number-one tip for scaling agile successfully is having consistent process and practices (**42%**), followed by executive sponsorship (**40%**) and the implementation of a common platform across teams (**39%**).

AGILE PROJECT MANAGEMENT PRACTICES AND TOOLS

Scrum still dominates as the agile methodology of choice (**56%**), while pure XP - practiced by nearly one-quarter of respondents in the 2006 report was virtually non-existent in 2014 (**<1%**).

In general, the use of agile project management tools was up. In fact, in a year-over-year comparison, respondents' future plans to use various tools doubled in every category of tool sets. Most people used Microsoft® Excel or Project; however, satisfaction rates were the highest with solutions built specifically for agile. The top three preferred project management solutions were VersionOne (**92%**), Atlassian/JIRA (**86%**) and LeanKit (**85%**).

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ABOUT THE SURVEY

The 9th annual State of Agile survey was conducted between July and October, 2014.

Sponsored by VersionOne, the survey invited individuals from a broad range of industries in the global software development community. A total of 3,925 completed responses were collected, analyzed and prepared into a summary report by Analysis.Net Research, an independent survey consultancy.

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Respondent Demographics

SIZE OF ORGANIZATION

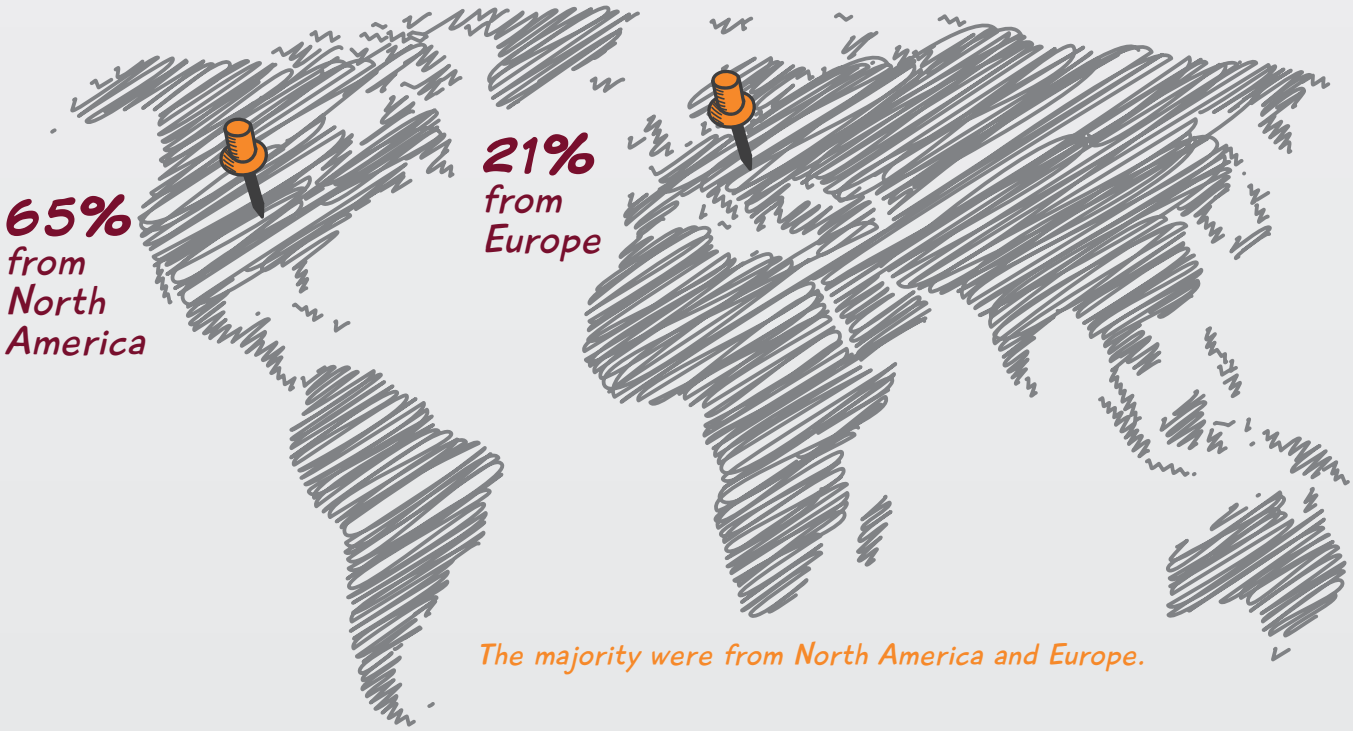
53% of all respondents had more than 1,000 people in their software organization

35% had more than 5,000 people in their entire organization

20% worked in very large organizations with more than 20,000 people

WHO RESPONDED

Project/Program Manager	24%
Development Staff	22%
Development Leadership	14%
Other (ScrumMaster or Internal Coach)	13%
Product Owner/ Business Analyst	13%
Consultant/Trainer	8%
IT Staff	3%
C-Level	3%



The majority were from North America and Europe.

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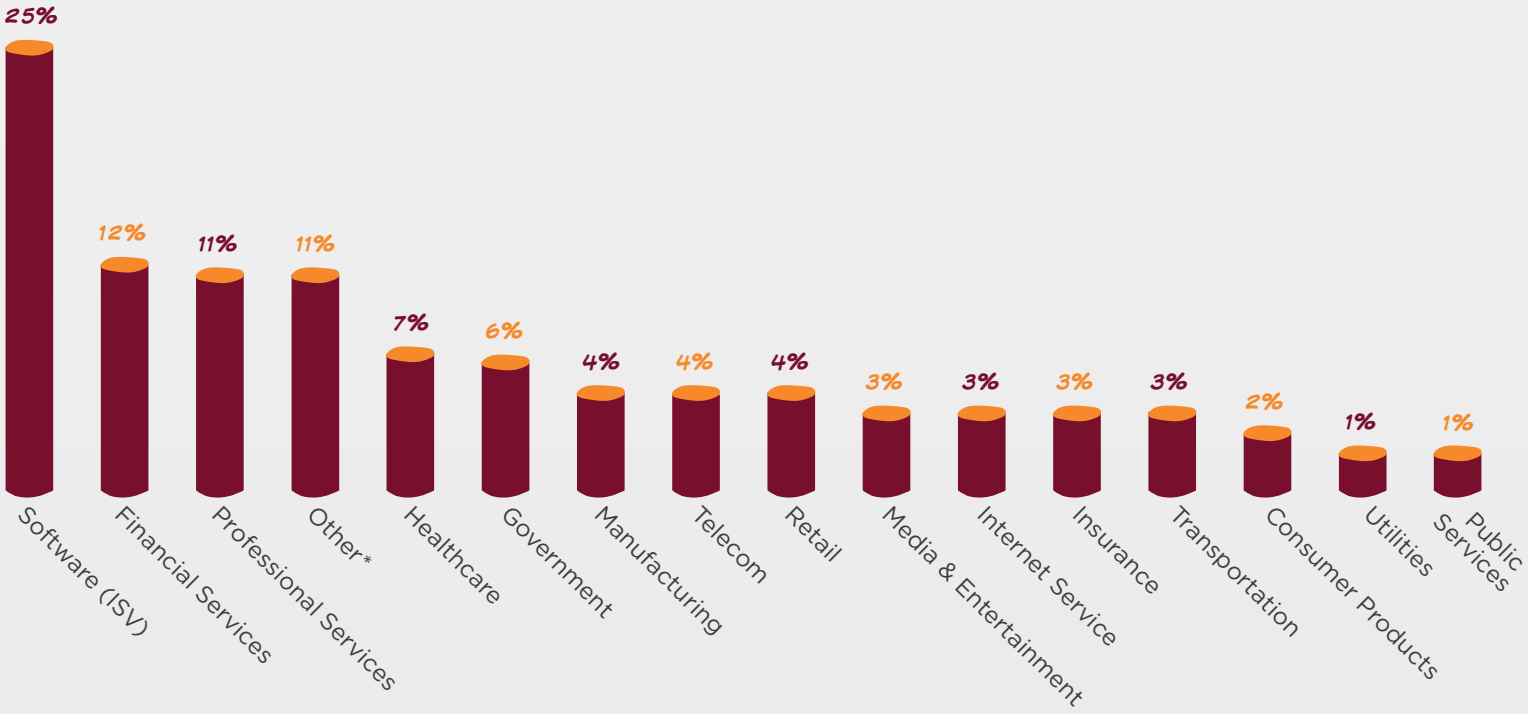
Respondent Demographics

INDUSTRIES

Most respondents (**25%**) worked for software/ISV companies. In addition, a significant number of respondents worked for financial services (**12%**) and professional services (**11%**) organizations.

*Write-in responses were commonly Education, Consulting, Energy, Oil, Construction, and Non-Profit



PERSONAL EXPERIENCE WITH AGILE DEVELOPMENT PRACTICES

Ninety percent (**90%**) of respondents said they are at least knowledgeable (1+ year of experience) about agile software development techniques. Additionally, **58%** said they are 'very' to 'extremely' knowledgeable about agile (3+ years of experience).

28%

Extremely knowledgeable... 5+ years

30%

Very knowledgeable... 3-4 years

32%

Moderately knowledgeable... 1-2 years

10%

Minimal/ no knowledge... Less than 6 months

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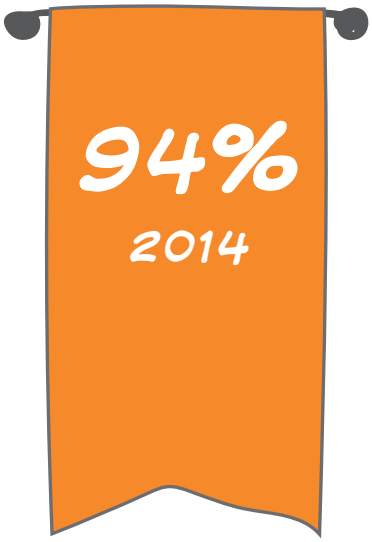
Company Experience and Adoption

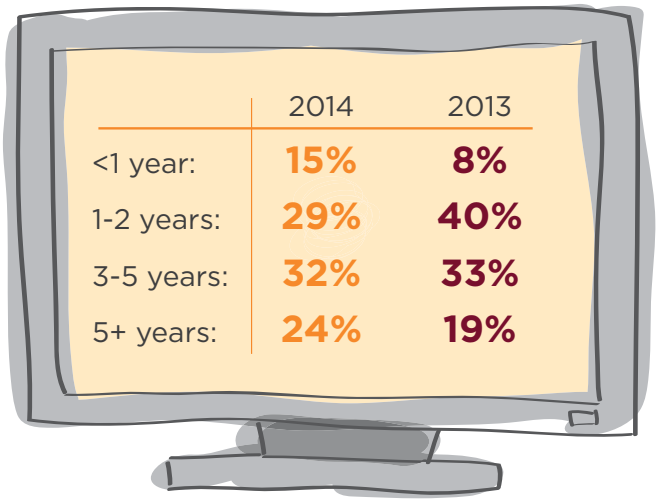
COMPANY EXPERIENCE

HOW MANY?

The number of organizations that practice agile.



HOW LONG?

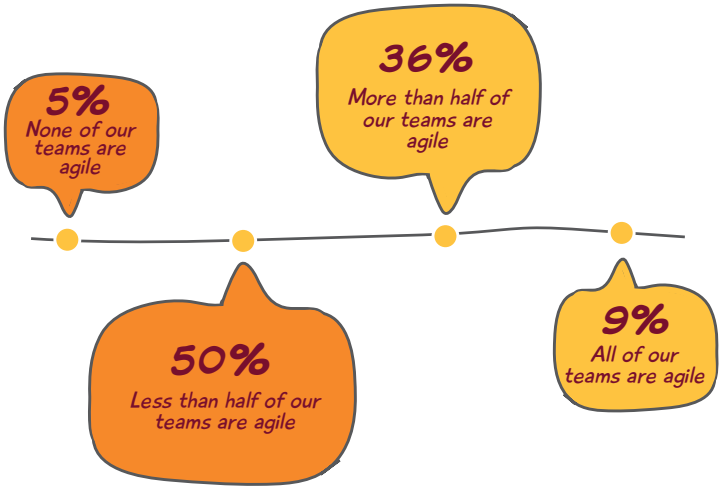


	2014	2013
<1 year:	15%	8%
1-2 years:	29%	40%
3-5 years:	32%	33%
5+ years:	24%	19%

Approximately 24% of respondents worked in organizations that have practiced agile for greater than five years, up from 19% in 2013.

PERCENTAGE OF TEAMS USING AGILE

A total of **45%** of respondents worked in development organizations where the majority of their teams are agile. Only **5%** of respondents work in a completely traditional/non-agile development organization. Contrast this with the 2009 report, in which (**31%**) of the respondents worked where there were only zero to two teams practicing agile!



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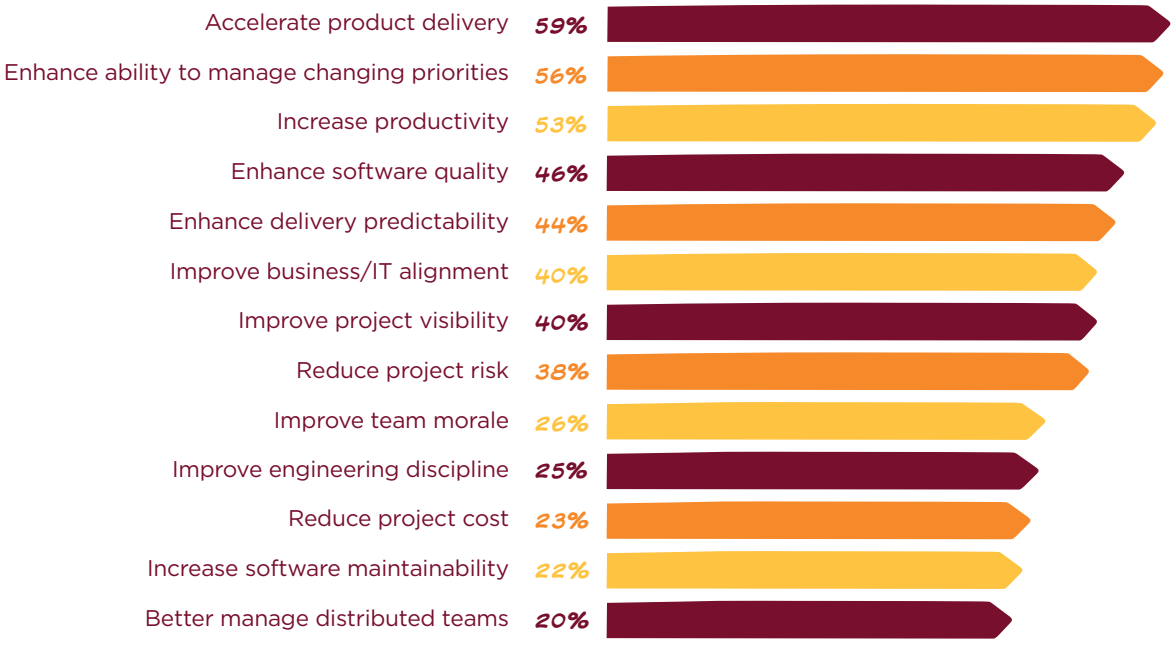
Company Experience and Adoption

REASONS FOR ADOPTING AGILE

Consistent with last year, most respondents adopted agile practices to accelerate product delivery (**59%**) or enhance their ability to manage changing priorities (**56%**). However, in 2014, productivity (**53%**) has moved into the top 3, outranking last year's #3 response—improved IT and business alignment.

*Respondents were able to make multiple selections.



DISTRIBUTED AGILE TEAMS

Nearly **80%** of respondents had at least some distributed teams practicing agile within their organizations, up from **35%** just two years earlier.

AGILE MATURITY

More than **90%** of respondents' organizations had adopted agile in their software organizations.

Had teams that are in the early adoption phase with agile

Had teams ranging from very early to mature adoption

Had teams with mature adoption

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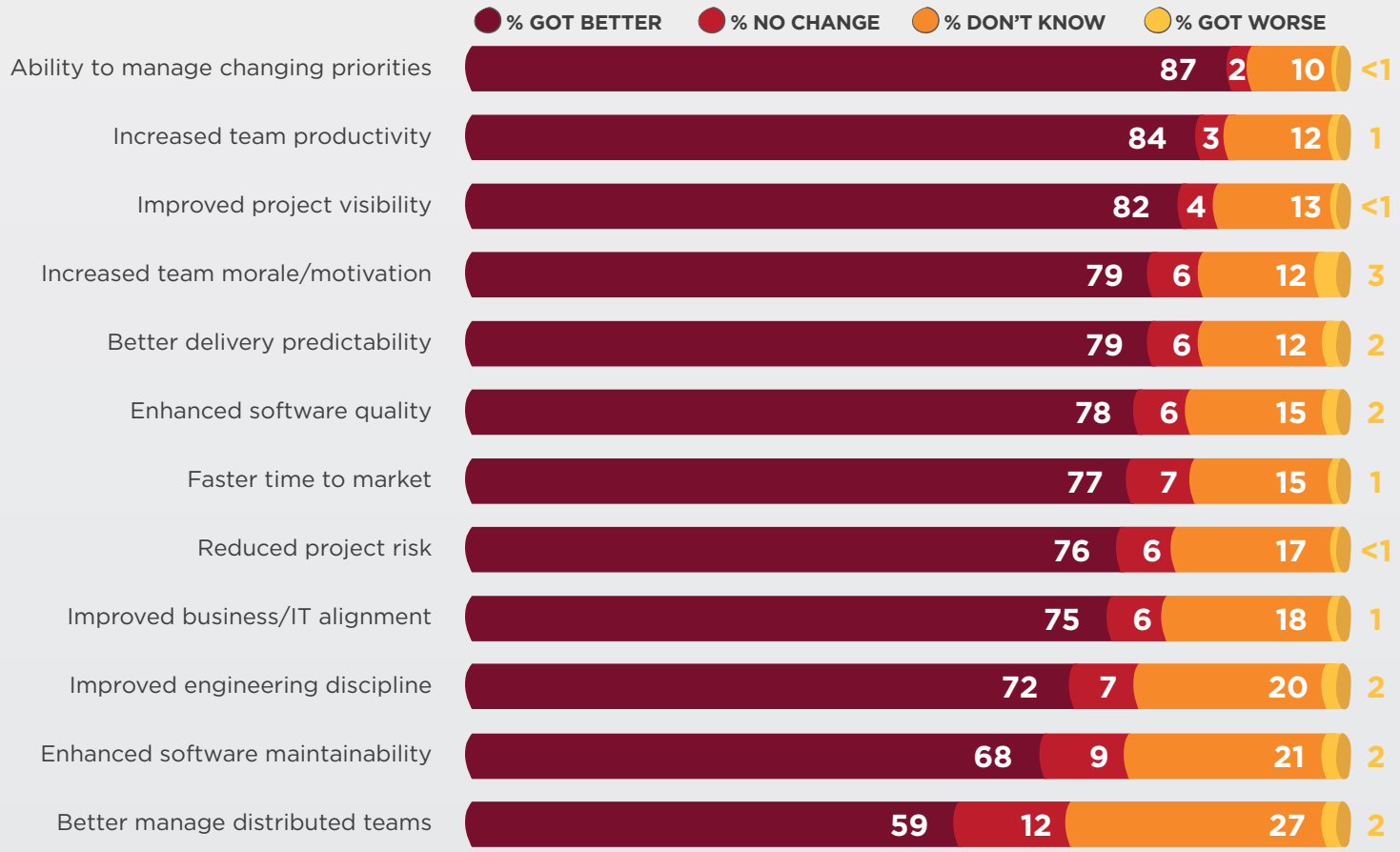
Benefits of Agile

87% *of respondents said implementing agile improved their ability to manage changing priorities.*

53% *said that the majority, if not all, of their agile projects have been successful.*

ACTUAL IMPROVEMENTS FROM IMPLEMENTING AGILE

For four years running, the top three benefits of adopting agile remain the same: manage changing priorities (**87%**), team productivity (**84%**), and project visibility (**82%**).



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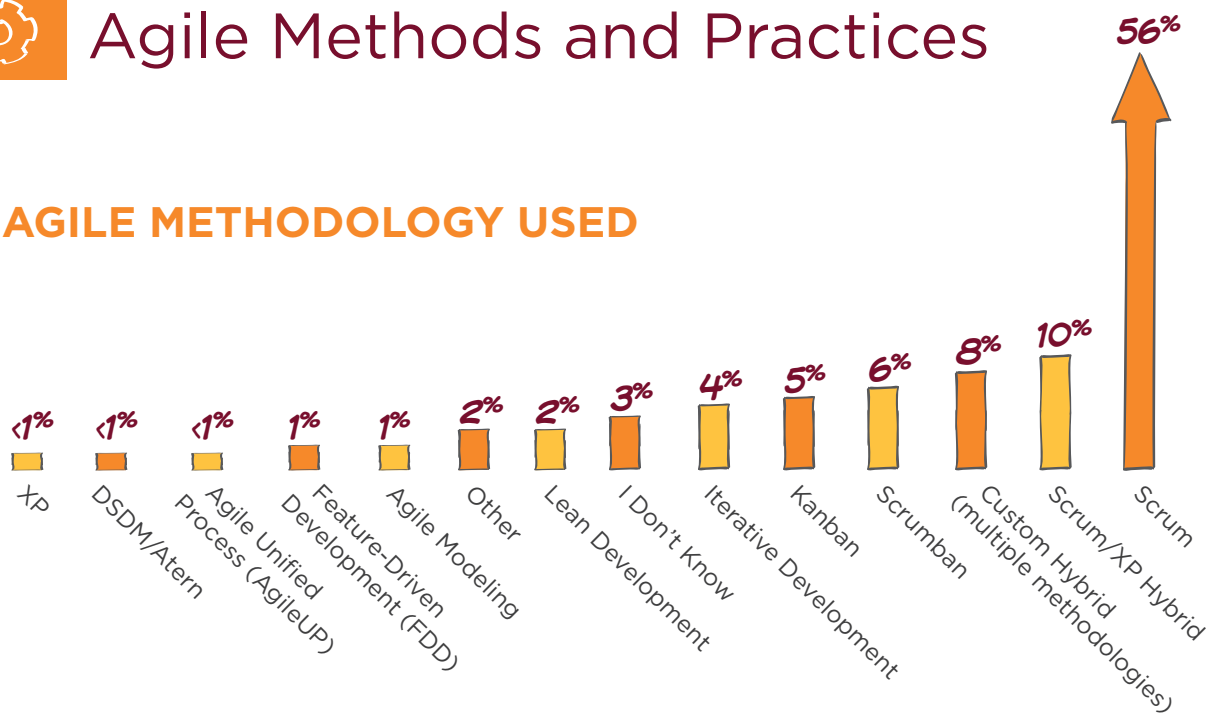
Agile Methods and Practices

9th ANNUAL STATE OF AGILE™ SURVEY

AGILE METHODOLOGY USED



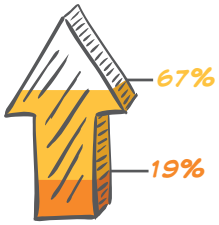
AGILE TECHNIQUES EMPLOYED

The most widely practiced agile technique is still the daily standup (**80%**), followed closely by the use of short iterations (**79%**) and prioritized backlogs (**79%**). About two-thirds of respondents said they conduct Iteration planning and retrospectives, while less popular techniques included agile games (**13%**) and Behavior-Driven Development (BDD) (**9%**).

There has been a sharp drop in the use of taskboards and team-based estimation (**-14%** and **-13%**, respectively over 2013). Techniques that remained relatively unchanged over the past year were collective code ownership and continuous deployment.

AGILE IN OUTSOURCED DEV PROJECTS

Approximately **67%** of respondents are outsourcing development projects. Of these, **19%** are using agile practices to manage the majority of these outsourced projects.



Top 5 Agile Techniques

Percent of 100

- **80%** Daily standup
- **79%** Short iterations
- **79%** Prioritized backlogs
- **71%** Iteration planning
- **69%** Retrospectives
- **65%** Release planning
- **65%** Unit testing
- **56%** Team-based estimation
- **53%** Iteration reviews
- **53%** Taskboard
- **50%** Continuous integration
- **48%** Dedicated product owner
- **46%** Single team (integrated dev & testing)
- **43%** Coding standards
- **38%** Open work area
- **36%** Refactoring
- **34%** Test-Driven Development (TDD)
- **31%** Kanban
- **29%** Story mapping
- **27%** Collective code ownership
- **24%** Automated acceptance testing
- **24%** Continuous deployment
- **21%** Pair programming
- **13%** Agile games
- **9%** Behavior-Driven Development (BDD)

*Respondents were able to make multiple selections.

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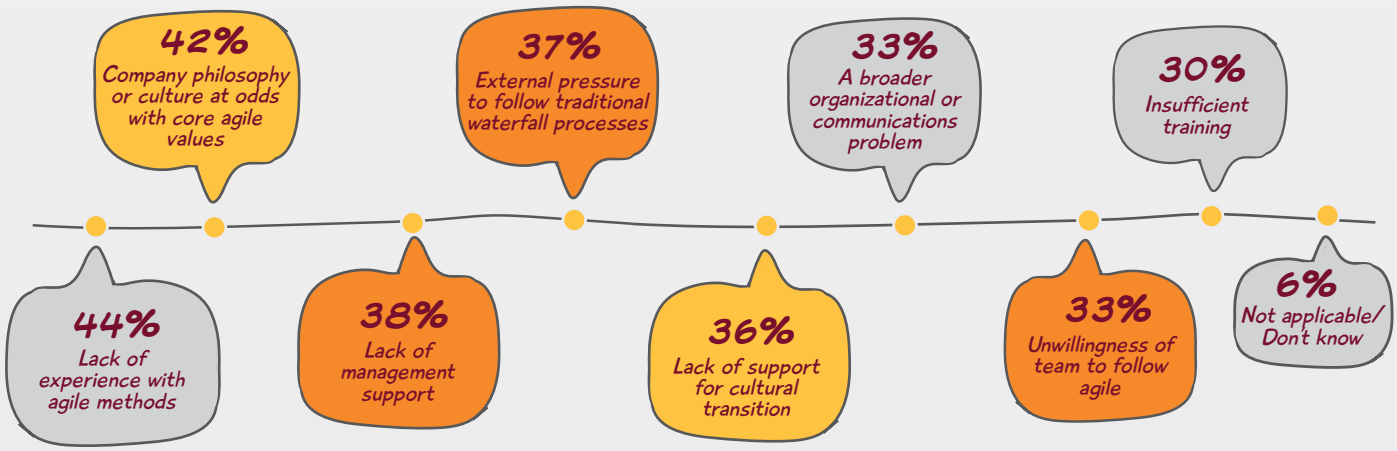
Agile Success and Metrics

WHAT CAUSES AGILE PROJECTS TO FAIL? WHAT IMPEDES AGILE ADOPTION?

LEADING CAUSES OF FAILED AGILE PROJECTS

In cases where agile projects were unsuccessful, most respondents pointed to lack of experience with agile methods (**44%**). Of note, two of the top five causes of failure were related to company culture – company philosophy or culture at odds with core agile values at **42%** and lack of support for cultural transition at **36%**.

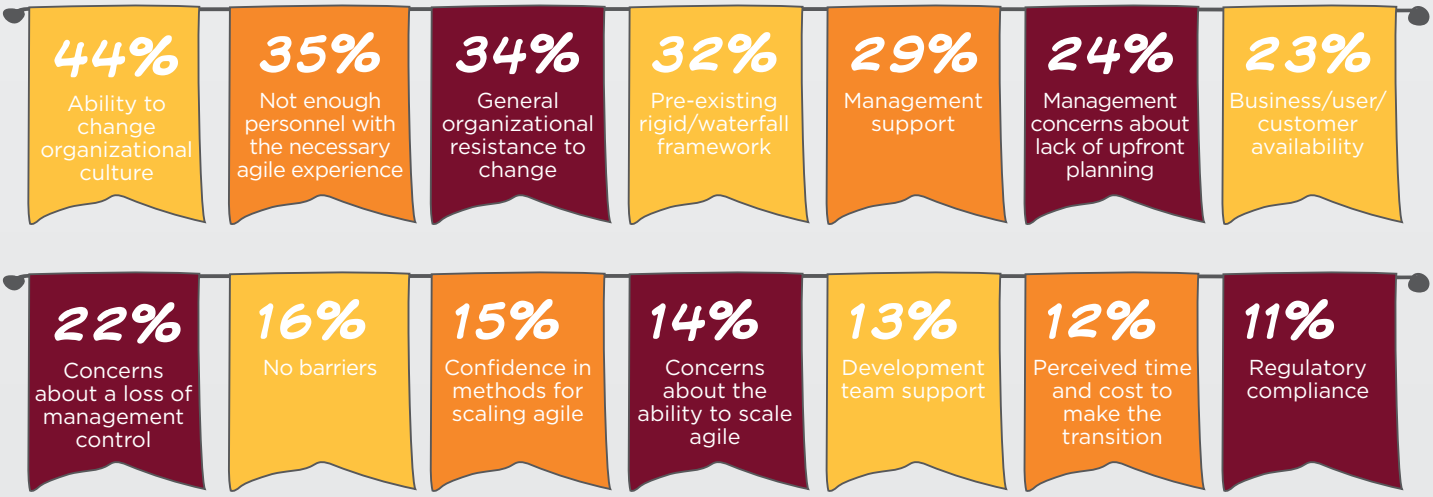
*Respondents were able to make multiple selections.



BARRIERS TO FURTHER AGILE ADOPTION

At the agile initiative level, respondents cited organizational culture or a general resistance to change as their biggest barriers to further agile adoption, followed by not having the right skill set.

*Respondents were able to make multiple selections.



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Agile Success and Metrics

HOW IS SUCCESS MEASURED... WITH AGILE INITIATIVES?

When asked how respondents gauge the success of their agile initiatives, the most-cited value indicator was on-time delivery of projects – followed by product quality and customer/user satisfaction.

*Respondents were able to make multiple selections.

1. On-time delivery (58%)
2. Product quality (48%)
3. Customer/user satisfaction (44%)
4. Business value (44%)
5. Product scope (features, requirements) (39%)
6. Project visibility (30%)
7. Productivity (29%)
8. Predictability (25%)
9. Process improvement (23%)
10. Don't know (11%)

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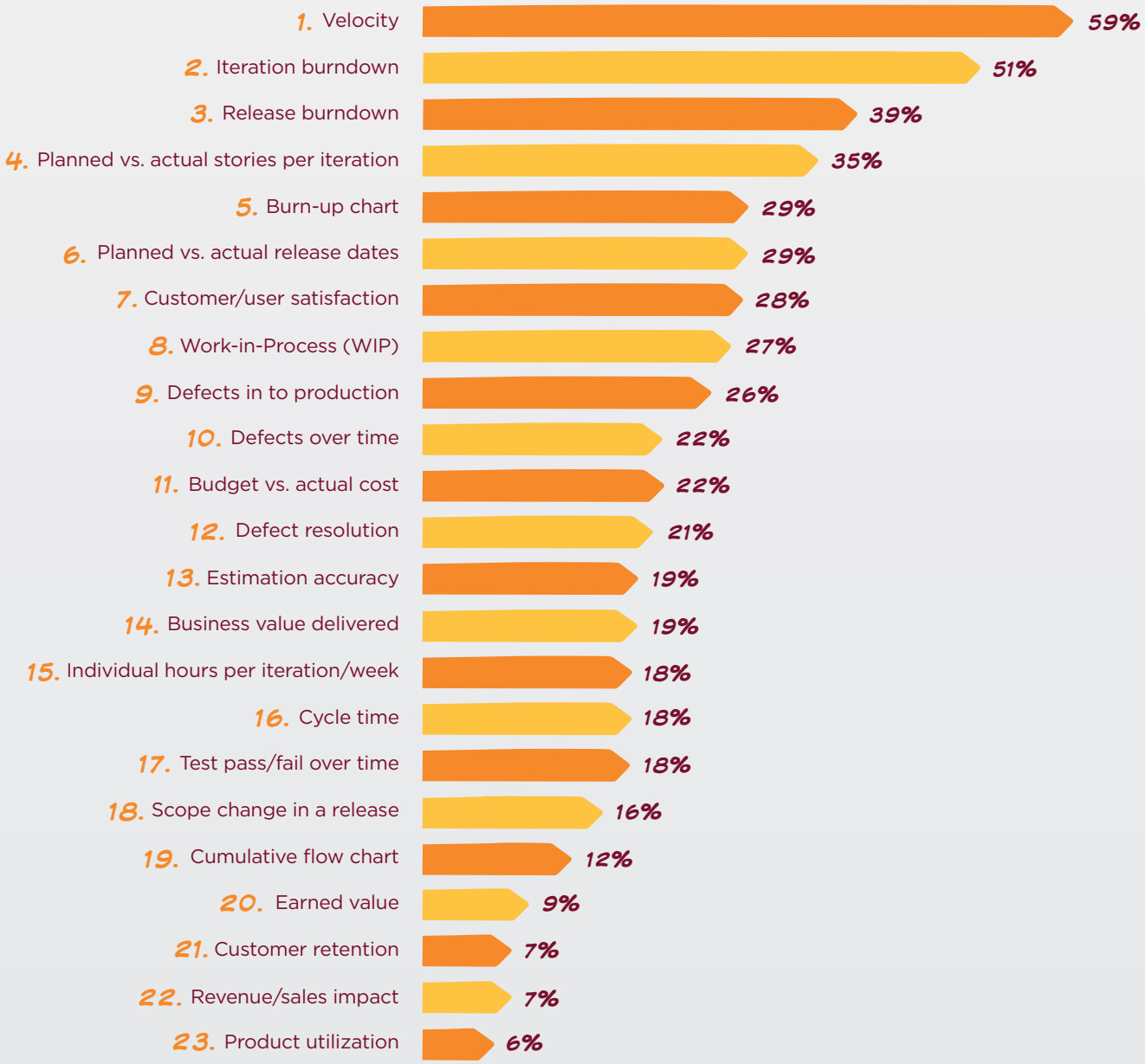
Agile Success and Metrics

HOW IS SUCCESS MEASURED... ON A DAY-TO-DAY BASIS?

On a more day-to-day basis, the most common metrics* being used to track agile projects were velocity (**59%**), iteration burndown (**51%**), and release burndown (**39%**). The least-used agile metrics were product utilization, revenue/sales impact, and customer retention.

*Respondents were able to make multiple selections.



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Scaling Agile

SCALING METHODS & APPROACHES

The majority of respondents use Scrum/Scrum of Scrums to help scale agile within their organizations.

*Respondents were able to make multiple selections.

TOP 5 TIPS FOR SUCCESS WITH SCALING AGILE

When asked what has been the most valuable lesson(s) learned in easing their adoption at scale, respondents cited these* as the top five tips:

*Respondents were able to make multiple selections.

1. **42%** Consistent process & practices
2. **40%** Executive sponsorship
3. **39%** Implementation of a common tool across teams
4. **35%** Agile consultants or trainers
5. **31%** Internal agile support team

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

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Project Management Tools

GENERAL TOOL USES & PREFERENCES

More than three-quarters of respondents are currently using spreadsheets, taskboards, and bug trackers. The most notable drop in tool use from 2013 to 2014 was story mapping tools (**-13%** YOY). Respondents said they intend to use more tools in general, with nearly every category having doubled over last year's data. For example, **20%** plan to use agile project management tools compared to **10%** in 2013.

	CURRENT TOOL USAGE		FUTURE PLANS TO USE	
	2014	2013	2014	2013
Bug tracker	80%	83%	10%	5%
Taskboard	79%	81%	11%	6%
Spreadsheet	72%	68%	5%	3%
Wiki	68%	71%	12%	6%
Agile project management tool	65%	66%	20%	10%
Unit test tool	65%	65%	21%	12%
Automated build tool	65%	69%	20%	12%
Continuous integration tool	55%	57%	26%	14%
Kanban board	52%	43%	15%	9%
Traditional project management tool	51%	49%	7%	4%
Requirements management tool	50%	47%	22%	10%
Release/deployment automation tool	48%	47%	32%	14%
Index cards	41%	44%	10%	6%
Project & portfolio management (PPM) tool	37%	22%	24%	11%
Automated acceptance tool	35%	33%	39%	19%
Story mapping tool	34%	47%	29%	14%
Refactoring tool	29%	33%	26%	11%
Customer idea management tool	22%	21%	28%	11%

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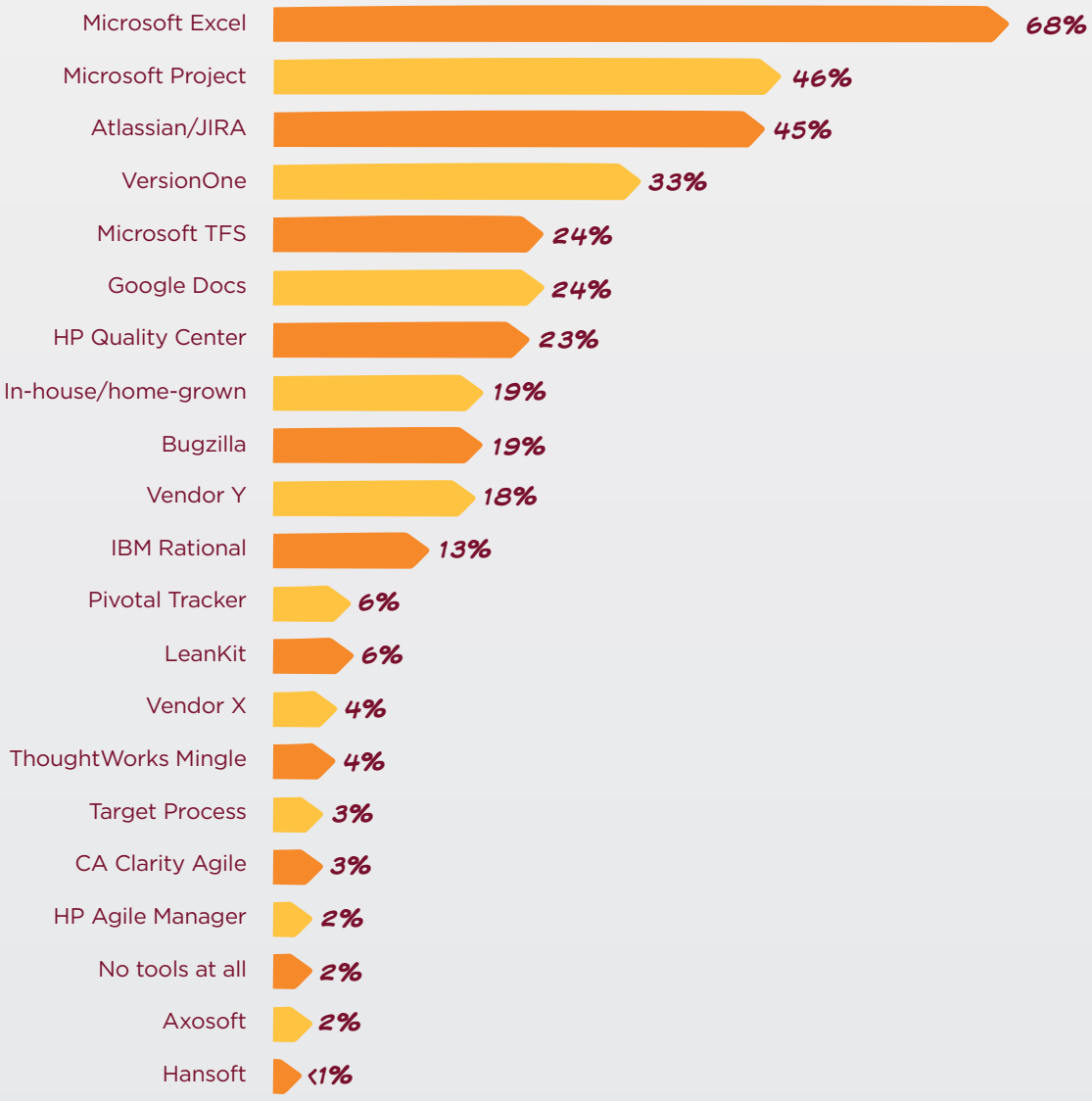
Project Management Tools

USE OF AGILE PROJECT MANAGEMENT TOOLS

Over two-thirds of respondents use Microsoft® Excel (**68%**) to manage their agile projects. Other commonly used tools were Microsoft Project (**46%**), Atlassian/JIRA (**45%**), and VersionOne (**33%**).*

*Notes: Previously vendors "X" and "Y" requested not to be identified in the State of Agile survey. Respondents were able to make multiple selections.



Several notable "write-in" tools were also cited, including: AgileFant, FogBugz, Mantis, Redmine, SharePoint, Trac, and Trello.

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Project Management Tools

SATISFACTION WITH AGILE PROJECT MANAGEMENT TOOL CHOICE

In addition to tool use, respondents were asked whether they would recommend the tool(s) they are using based on their past or present use. For the third year in a row, VersionOne had the highest satisfaction rate of any other tool evaluated in the survey (**92%**). In addition, the two most commonly used tools (Excel and Project) were ranked among the lower-half when asked whether respondents who used these tools would recommend them (Excel - **62%** and Project - **53%**).

*Notes: Previously vendors "x" and "y" requested not to be identified in the State of Agile survey
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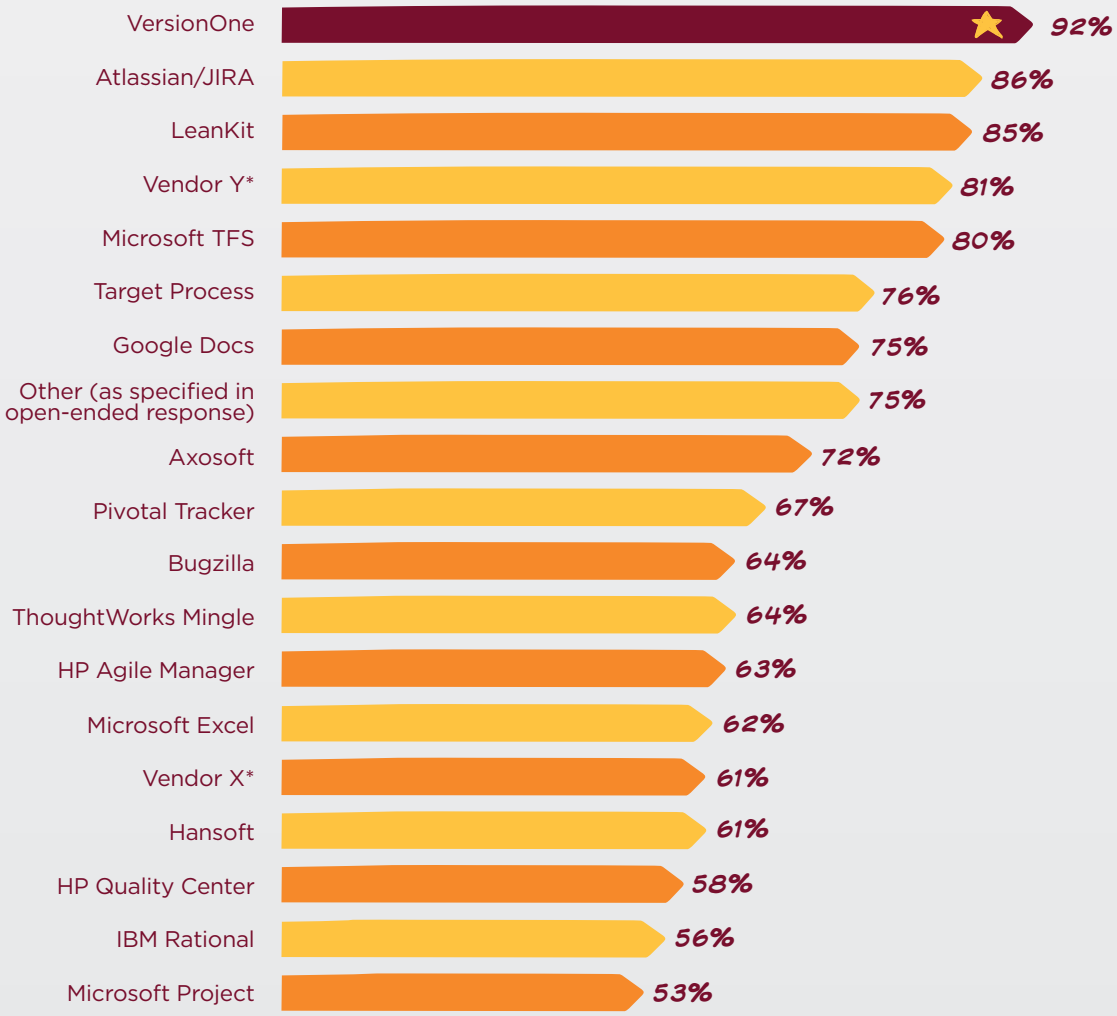

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