





RESPONDENT DEMOGRAPHICS 7

UNDERSTANDING AGILE AND THE OBSTACLES 9

SCALING AGILE FRAMEWORKS & LIFECYCLE MANAGEMENT TOOLS 14

DESIRED BENEFITS VS. ACTUAL OUTCOMES OF SCALING AGILE 19

ACCELERATED PACE OF PROGRESS 22

INTEGRATING SCALING AGILE WITH DEVOPS INITIATIVES 24

METHODOLOGY 27

EXECUTIVE SUMMARY

It's been more than 15 years since pioneering businesses began scaling Agile practices across their enterprises with the Scrum of Scrums approach. The emergence of a more holistic Scaled Agile Framework (SAFe®) solution in 2011 spurred organizations around the globe to begin scaling Lean-Agile IT systems and software development methods company-wide. Today, more than 70 percent of U.S. Fortune 100 companies have embraced Agile across their enterprises. This is no surprise to us. As Agile consultants we repeatedly see that once a team succeeds in implementing Agile, it doesn't take long for other teams in an organization to catch onto the benefits of this practice.

With the recent release of SAFe v4.5, we expect to see another explosion of enterprises, large and small, seeking out the benefits that scaling Agile offers for productivity, quality, competitiveness, and employee engagement. In addition, due to the improved capabilities of v4.5, we expect to see rapid integration between Agile and DevOps practices. As keeping pace with rapid technological change has become crucial to competition in every industry, businesses that don't adopt Agile and DevOps will be left behind.

To take the pulse of this fast-evolving Agile landscape, cPrime conducted a survey of more than 5,000 of our industry contacts who have expressed interest in Agile practices. We asked respondents to tell us what they understand about scaling Agile, which frameworks and tools they're using or considering, what they hope to get out of them, what they already are getting out of them, what obstacles they face, at what stage of embracing Agile they are, and whether they are integrating Agile with DevOps. This report contains the detailed results and analysis of our "The State of Scaling Agile 2017" survey. Among the key findings of our research:



Organizations are moving more quickly from the first stage of starting an Agile journey on one team to the next stage—scaling to the entire organization.



Those seeking enterprise-wide agility are lured by its promise to enable complex organizations to shift direction and maintain institutional alignment to get the right things done at the right time, to get better return on investment, and to improve top-level planning and predictability.

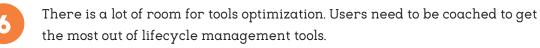


Organizations need to prioritize scaling Agile—not merely by putting it into the budget or on the calendar, but by pursuing it before other easier-to-understand initiatives.

An "internal Agile support team" —a group of experienced evangelists—is key to implementing and driving an enterprise-wide transformation.

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"Flexibility" the most important feature companies look for in a scaling Agile framework.



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Most people agree that you can't scale Agile without DevOps. If you still think DevOps is just a fad, it's time to wake up.

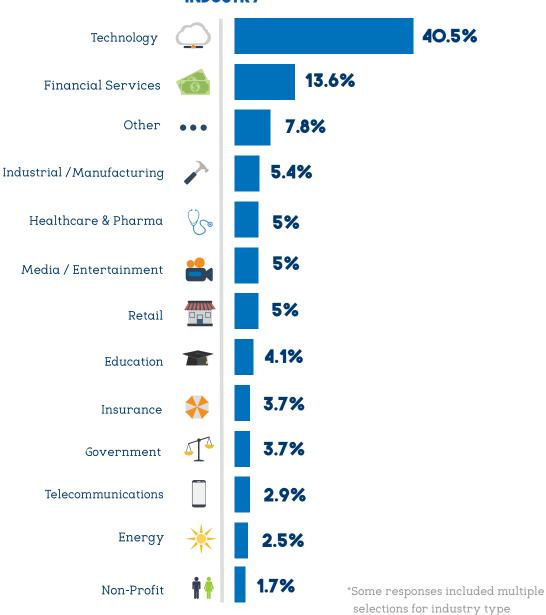
Your culture and leadership can kill your effort or give it life. Achieving Agile at scale is a cultural feat, and strong leadership is crucial to managing that change.

To be sure, many if not most companies have a long way to go on their scaling Agile journey. We know it's not easy. But a fine-tuned, integrated Agile practice is what separates the All-Stars from the rest. If your business hasn't scaled Agile, then your people are wasting time trying to figure out how to work while your competitors who have scaled are already working. It's time to catch up.

RESPONDENT DEMOGRAPHICS

SURVEY LANDSCAPE

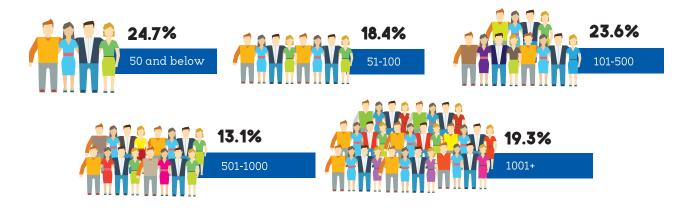
Responses to our survey of over 5,000 people with an expressed interest in agile process come from a broad variety of industries including aerospace, education, energy, financial services, healthcare & pharma, insurance, government, manufacturing, media & entertainment, nonprofit, retail, and telecommunications.

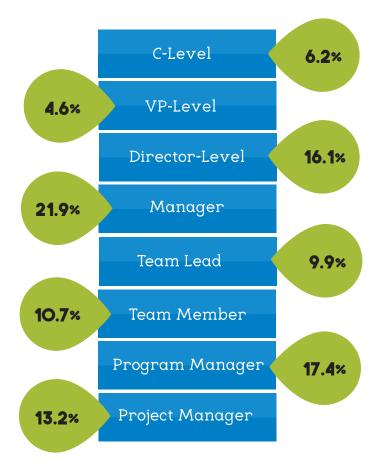


INDUSTRY

SIZE OF PMO

Respondents work within product development, engineering, project management offices and scrum teams ranging in size from under 50 people (24 percent) to over 1,000 people (20 percent).





JOB TITLE

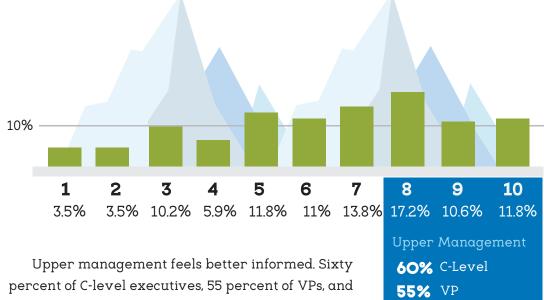
By job title, respondents also represent a spectrum of positions, with managers/project managers/program managers/team leads the largest group (62 percent). Six percent of respondents are C-level executives; 21 percent hold VP and director level positions; 11 percent are team members.

UNDERSTANDING AGILE AND THE OBSTACLES

FIGHTING FOR FAIR WEATHER

When it comes to having confidence in their own basic understanding of what scaling Agile in their organization means, most survey respondents overall claim a good or strong comprehension.

Just 3.5 percent of respondents claim to have no basic understanding. And on a scale of 1-10, with 10 being a "very strong understanding," 65 percent rank themselves 6 or higher; 40 percent consider themselves to be in the 8/9/10 range.

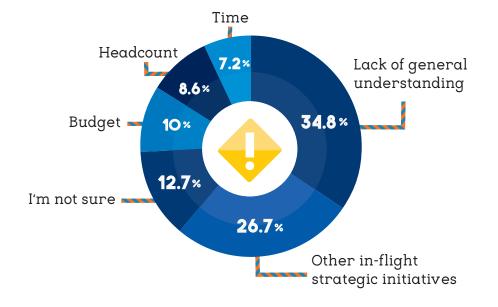


opper management feels better informed. Sixty percent of C-level executives, 55 percent of VPs, and 50 percent of Directors say they have a strong, very strong, or extremely strong level of understanding (8 or higher on a scale of 1-10). Lower down the chain of command, professionals are less likely to say they know what it means to Scale Agile in their organization. Fewer than half of Managers (43 percent), Project Managers (38 percent), Team Leads (36 percent), Program Managers (31 percent), and Team Members (19 percent) rank their understanding at 8-10.

ty 60% C-Level ad 55% VP ry 50% Director ng Professionals ey 43% Managers aa- 38% Project Mgr act 36% Team Lead

- **31%** Program Mgr
 - 19% Team Member

"Those high self-rankings in upper management are consistent with what our clients tell us when we meet with them to discuss an engagement," says cPrime CEO Zubin Irani. "But as we go on the journey, they quickly realize there's a lot they didn't realize that they don't know." That could explain what's in the way of adopting a formalized scaling agile framework or process for many organizations. "Lack of general understanding" is the most common response (35 percent) to the question, "What might be the key item preventing you from adopting a formalized scaling framework/process (i.e. SAFe)?" "Other in-flight strategic initiatives" are a problem for 27 percent, and 10 percent or fewer respondents name budget, headcount, or time as the limiting factor. Scaling agile initiatives are even more likely to compete against other in-flight initiatives at companies in two sectors going through massive disruption: telecommunications (50 percent of respondents in that industry call it a roadblock) and media & entertainment (42 percent).



WHAT PREVENTS SCALING AGILE

By job title, Directors (50 percent) and Team Leads (36 percent) are most likely to blame other initiatives for stalling their Agile framework adoption. But all others, C-level execs consider lack of Team Member understanding to be the main thing preventing them from adopting a formalized scaling framework or process.

In our experience, the two obstacles reinforce each other. Lack of understanding of how to implement a scaling Agile initiative can lead managers to pursue other strategies instead. Scaling Agile needs to be prioritized—not merely in the budget or calendar, but against other easier-to-understand initiatives.

Beyond adopting a formalized framework, we asked respondents to name the roadblocks impacting their ability to Scale Agile. Of the least concern? Issues such as budget, time, and regulatory compliance. "Company culture" is on the top-5 list of an overwhelming 66 percent of respondents; it's the top roadblock named by C-level respondents and managers of all types. Lack of experience with Agile (45 percent), unwillingness of other functional groups to follow Agile and lack of executive management support (each at 41 percent), and insufficient training (37 percent) round out the top 5 roadblocks for all respondents.



ROADBLOCKS TO SCALING AGILE

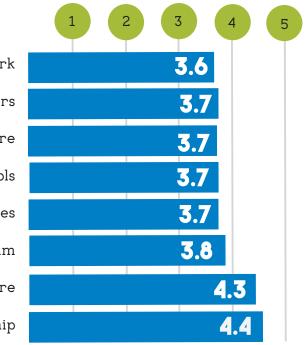
"When humans get together to build something, it's a social problem," says cPrime Agile Practice Lead, Kreisler Ng. "Changing the way we think and do things is the hardest challenge. People are used to working and attacking problems in certain ways, and that's very difficult to change."

"I've seen organizations say they're Agile, yet still make their teams conform to all the waterfall phase gates without modifying them for the Agile process," points out SAFe expert and trainer Ken France, CEO of Blue Agility. "I've also seen where they still require integration and user acceptance testing at the end, which means...they always have a large slowdown at the end." Notably, we consider these the same roadblocks to team-level Agile. Most organizations need to answer some basic questions before scaling, such as:

- Is your culture ready?
- Have you solicited a third-party assessment?
- Have you considered all the impacts?
- Are your teams truly embodying and mastering the Agile mindset?
- Could help from industry experts garner the executive management support you need to get going?

With clients, we tackle training early and often during an Agile transformation. Agile is a new way to work and everyone learns, adopts, and changes their values and habits at different paces. Agile coaching in culture change, learning a new process, and traceability/visibility can be valuable to companies that seek to experience greater benefits from Scaling.

On a checklist of steps to making scaling Agile a success, more than 80 percent of respondents give top priority to "executive sponsorship" and "willingness by your existing culture," while 66 percent say an "internal Agile support team" is also critically important.



IMPORTANCE FOR SCALING SUCCESS (1–5 SCALE)

Scaling Agile framework Agile consultants or trainers DevOps practices & culture Implementation of a set of common tools Consistency across processes & practices Internal agile support team Willingness by your existing culture Executive sponsorship We're not surprised to see alignment between the earlier listed roadblocks and the steps respondents consider to be the most important to success in scaling Agile. And we're encouraged to see how respondents value the "internal Agile support team." Whether that's a change coalition, the Agile Leadership Team, the Agile CoP or CoE, a group of experienced people is crucial to implement and drive a transformation. In fact, based on our experience, we'd value that team even higher than executive sponsorship, because a team can validate the benefits of Agile with tangible results.

"If you don't have support from the people who can effect the change that needs to be made, you can be using the best framework in the world and it won't matter," explains France. "The framework can help start behavioral change, but if the culture doesn't change and the required behaviors are not allowed to change, then true transformation will never occur; some positive results might be realized, but things will largely look the same."

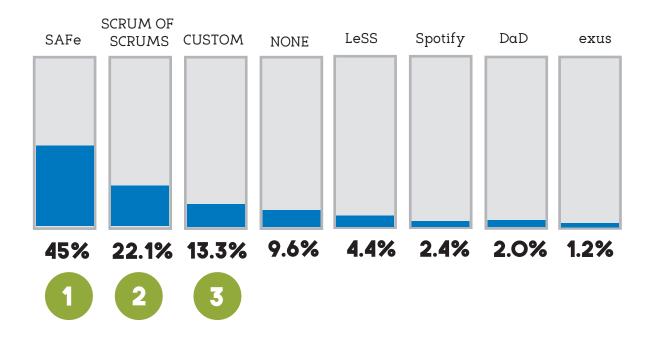
We advise clients to establish this team within the first 2-3 months of a transformation and maintain it throughout the process. This group's mission and charter become the North Star for the entire organization.

SCALING AGILE FRAMEWORKS & LIFECYCLE MANAGEMENT TOOLS

MAP YOUR JOURNEY, GRAB YOUR GEAR

Among Agile Scaling Frameworks, more respondents are using or considering using SAFe than any other. Considering that many custom scaling frameworks incorporate elements of SAFe, it's even likely that those who say they're using or considering a custom framework are also using or will use SAFe along with other frameworks or their homebrew practice.

Twice as many respondents (45 percent) choose SAFe as do the next most popular option, Scrum of Scrums (22 percent). Third in popularity is the custom framework, preferred by 13 percent of respondents.



These data support what experts see in the field. Blue Agile's Ken France calls SAFe the most comprehensive framework. "It incorporates Scrum, Kanban, XP, lean, systems thinking, makes architecture a first-class citizen, and now has more focus on DevOps in SAFe 4.5, so it addresses most of the major issues that organizations will have at scale," he says, adding that it's also the most consumable. "It's visual, has extensive IP in the form of training, white papers, case studies, and it has an extensive partner network around it to help organizations adopt it. While SAFe has crossed the chasm, I still see lots of growth in the future and I don't see any other framework catching up." Says cPrime CEO Irani, "Scrum of Scrums has limitations when it comes to scaling across enterprises, that is why we see a dip from previous years and also why other scaling frameworks are becoming more popular."

"Great organizations aren't married to a framework," adds Kreisler Ng. "Frameworks are a great starting place, but custom will continue to grow as companies experiment and gather the pieces from different frameworks that work best for their given contextual environments."

Matt Schenck, Global Solutions Engineering Manager with Atlassian, says, "SAFe is a very prescriptive way of enterprise planning and reporting. My take, after working with many of our customers, is that many folks who say, 'we're doing SAFe' are really just trying to do portfolio management for Agile. Metaphorically, if I have a papercut, I'd say I'm using a Band-Aid, but it might not be a brand specific adhesive bandage. More specifically, companies are struggling to scale Agile beyond teams, and are borrowing many of the key principles of SAFe without fully committing to the entirety of the framework."

We also asked respondents to rank on a scale of 1-5 how their scaling Agile framework has helped them achieve improvements on a wide variety of management benchmarks. Respondents were most confident in their framework's impact on:



These responses back up our view that scaling frameworks serve as a mechanism to ensure continuous alignment with specific feedback loops throughout the product development cycle. They also reinforce our mantra: Dependencies kill product development. Frameworks call out dependencies to manage and mitigate the risks and to enable organizations to build products faster. Responses to the survey also confirmed our opinion that scaling frameworks support short term and long-term planning. Consistent alignment, metrics transparency, and a continuous working product are the keys to building out an accurate roadmap.

Respondents who have been on their scaling Agile journey for 5 or more years express more confidence than others on several additional management benchmarks. Those with longer-term scaling efforts say they also have greater confidence that the process has helped with:

- "Gaining better visibility into all my teams' reports."
- "Gaining better visibility into all my teams' processes."
- "Increased ability to manage distributed teams."
- "Building a better plan for building out our timeline."

Fewer than 4 percent of all respondents have great confidence that their scaling Agile Framework helps with either "identifying metrics teams need to report on" or "getting better predictability of teams' output quality." Survey responses also indicate that a scaling Agile Framework is not a perfect solution for managing distributed teams.

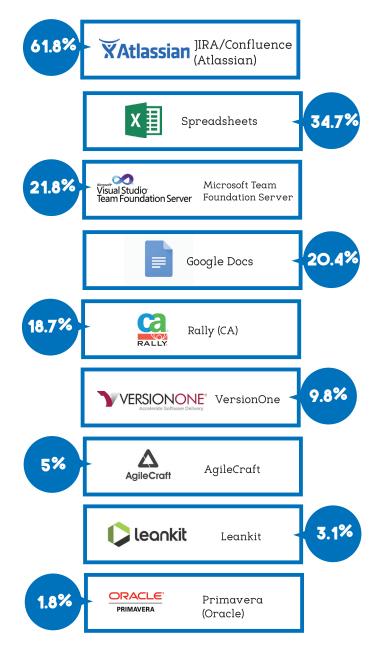
Notes Schenck, "People say they want enterprise agility, but it means something different to everyone."

When organizations Scale Agile, they need to normalize and standardize the way team metrics roll into program, portfolio, and enterprise metrics. In our experience, teams often decide on their own unique sets of metrics. Scaling demands that they change those to conform with enterprise-wide standards. Few understand why their metrics should reflect the big picture rather than their own teams' success.

As for managing distributed teams, our field experience proves that scaling your Agile framework is no substitute for co-location. While scaling Agile provides mechanisms and practices — such as Big Room Planning — to improve cooperation among large sets of distributed teams, working across disparate time zones, cultural differences, and incompatible team cultures is still a challenge.

We asked survey participants to tell us which lifecycle management tools they're using to support their Scaling Agile Framework and how those tools help them achieve a variety of project management tasks. More than 60 percent say they use Atlassian's JIRA/Confluence and many are using multiple tools to support their scaling efforts, including Rally, VersionOne, and AgileCraft.

LIFECYCLE MANAGEMENT TOOL USAGE



Responses here testify that much data massaging, metrics reporting, and analysis is still done in spreadsheets; 55 percent of respondents overall say they are using spreadsheets such as Google Docs. But they also show that for scaling, more complex organizations are embracing enterprise tools: Just 25 percent of organizations with 15 or more teams in a program use spreadsheets. Instead, those groups are more likely to use enterprise tools. While no one tool provides users high confidence in every lifecycle management task, these users are likely to be at least moderately confident that they are:



THE IMPACT OF LIFECYCLE MANAGEMENT TOOLS

Overall, respondents have a medium level of confidence in their lifecycle management tools in general. On a scale of 1-5, with 5 being most confident, the average ranking for tools fell in the 3.10 - 3.38 range.

These results indicate an opportunity for tools optimization. To be the most productive and effective to scale, organizations need to have the right tooling in place and optimized to work with their processes. In the field, cPrime experts find that clients who have been coached on tools optimization have more confidence in their performance

France points out that it's important to

temper tool choices with an emphasis on other aspects like culture change and the actual process. "People can be successful with different tools, but if they have a poor process or don't evolve their culture, the tool choice won't matter," he says.

DESIRED BENEFITS VERSUS ACTUAL DESIRED BENEFITS VS. ACTUAL OUTCOMES OF SCALING AGILE THE VIEW OF THE SUMMIT

What do people take into consideration when they're selecting an approach and framework for scaling Agile? Flexibility tops the list. Roughly sixty percent of respondents say flexibility is crucial in a scaling Agile framework. Top considerations include:

SELECTION OF A LIFECYCLE MANAGEMENT TOOL

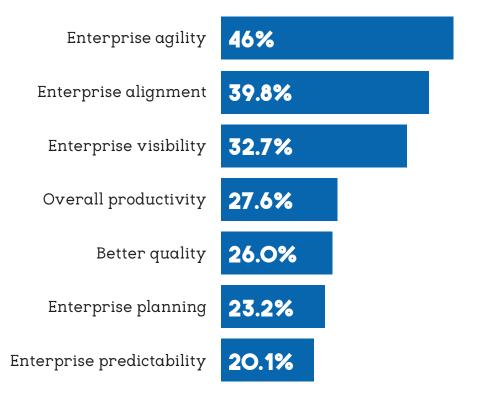


Ken France says one of the biggest mistakes people make when implementing a framework is being a slave to it. "SAFe is criticized for being non-agile or too prescriptive because people look at the big picture, take it literally, and try to implement everything. ... You have to implement the mechanisms of the framework you need to solve the problems you are having in an incremental way."

Respondents' answers point to the value of trailblazers who help establish communities. In the same way new coding languages gain acceptance and become industry standards, Agile frameworks that have

community support and readily available free, accessible documentation are more likely to catch on. And when it comes to the benefits desired from scaling Agile initiatives, it's no surprise that "enterprise agility" is sought by most respondents.

"Enterprise agility" lands on the top-three desired benefits list of nearly half of respondents. "Better enterprise planning and predictability" is top-three for 43 percent, and 40 percent consider "enterprise alignment" a top benefit.



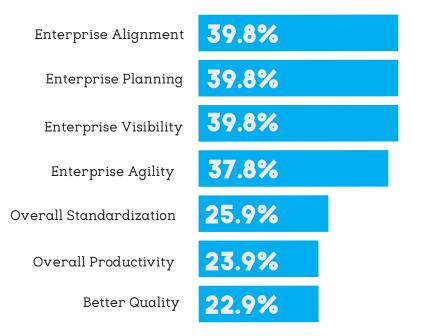
BENEFITS DESIRED FROM SCALING INITIATIVES

Improved agility is the single most desired benefit for every respondent by job title, except among VPs and Project Managers. People in the VP and Project Manager roles most desire "enterprise alignment" from their initiatives, VPs also like the potential that scaling Agile offers to better manage distributed teams.

Among C-level respondents, improvements in agility, alignment, and overall productivity rank as the top three benefits, and more than one quarter of these respondents are looking to their scaling Agile initiatives to improve return on investment and achieve better quality.

Responding quickly to market changes and jumping on a new opportunity can be like turning a big ship for a corporate enterprise. But we warn clients that just doing Agile won't provide enterprise agility. Scaling Agile can put you on the path, but it's a long one. Desired benefits don't always match up with actual ones. So, we asked respondents about the benefits their scaling efforts have, in fact, provided. Not surprisingly, answers vary based on how much time has lapsed since an organization began its scaling Agile journey.

Survey responses indicate that a scaling Agile framework can provide an array of benefits. Between 37 and 40 percent of respondents agree on four benefits in particular:



BENEFITS OF A SCALING AGILE FRAMEWORK

Most respondents (82 percent) began their scaling Agile journey within the past 3 years. But those who started 5 or more years ago say they've seen slightly different benefits: Enterprise agility and enterprise visibility, enterprise alignment, better quality, and accelerated product delivery.

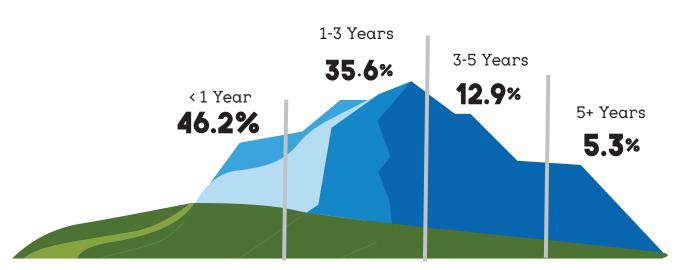
ACCELERATED PACE OF PROGRESS

PUTTING THE SKIP IN YOUR STEP



The pace at which organizations move from a single Agile team to scaling Agile across the organization is accelerating. "Most companies start doing Agile in a little corner of the business and it bleeds organically. After a couple of years, you have got to link all the pieces together," observes cPrime DevOps Lead Brandon Cipes. "The very nature of Agile is that it gets you to a speed and expediency that if you don't start coordinating across the company it will be crazy."

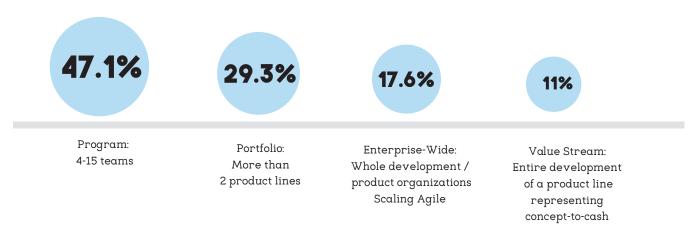
Most respondents say their organizations practiced Agile for at least 1 year before Scaling, and 70 percent practiced between 1-5 years first. Still, 16 percent of respondents are at organizations that began scaling before they'd practiced a full year.



YEARS DOING AGILE PRIOR TO SCALING

Just 13 percent of respondents have not yet begun their scaling Agile journey. Many of those who have begun, however, have not been at it long. Nearly half (46 percent) began within the past year. Just 17 percent started more than 3 years ago and 5 percent have been at it 5 years or more; 36 percent of respondents started 1-3 years ago.

"The next wave is going to be even faster," predicts Kreisler Ng. "In another 5 years, it will be 5 percent who just started scaling Agile. Most will have been doing it more than 5 years." Ng predicts that the numbers of companies that start scaling sooner than a year after beginning to practice Agile will jump, too. "They will see the benefit at the team level in a shorter time, and will scale out of necessity to survive as a company." We asked respondents who have begun their journey to tell us "at what level" their organization has Scaled Agile. Close to half (47 percent) are at the Program Level with 4-15 teams scaling Agile; 24 percent are at the Portfolio Level with more than 2 product lines scaling Agile; 18 percent are Enterprise-wide with whole development or product organizations scaling Agile; and 11 percent have scaled at the Value Stream Level—entire development of a product line, concept to cash.



THE LEVEL TO WHICH ORGANIZATIONS ARE SCALING

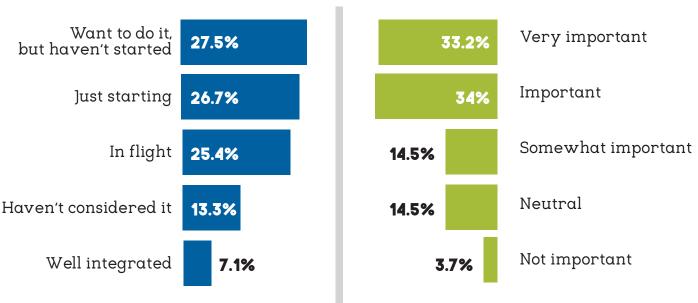
There is a keen interest in scaling and great need for education. As soon as teams and organizations experience the benefits of Agile development they look to scale. Those organizations that have been scaling for more than 3 years could be great resources for those just starting out. We advise clients to talk to others who are ahead in the scaling curve, understand their challenges, obstacles, opportunities and ask how they customized.

We expect to see accelerated scaling driven by business needs across all industries to deliver the right value faster to customers, and to change quicker if necessary without sacrificing efficiency or quality. Scaling Agile is fast becoming the only way to survive, and we expect rapid increases in the numbers of organizations that achieve Portfolio Level scaling and higher. We predict our 2018 survey to see the 24 percent at that level increase to 28 or 30 percent.

INTEGRATING SCALING AGILE WITH DEVOPS INITIATIVES

BRIDGING THE GAP

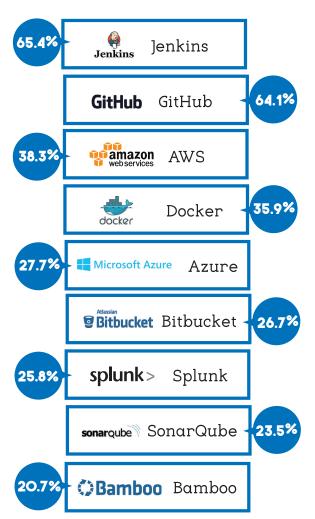
Most people we asked agree on the importance of DevOps for effectively scaling operations, but few are well on the way to doing DevOps yet.



DEVOPS EXECUTION - VS.- PERCEIVED VALUE

In response to the question, "How important do you rank DevOps for being able to effectively scale your operations?" 68 percent say "important" or "very important." Fewer than 4 percent consider DevOps "unimportant."

In fact, Agile organizations are using a variety of DevOps tools to help automate technical practices in conjunction with their Agile efforts. Embraced by more than 64 percent of respondents, Jenkins and GitHub are the leading time-tested tools that have become critical to doing DevOps. The popularity of Amazon Web Services (38 percent) and Azure (28 percent) point to the growing importance of public cloud for DevOps. Docker, used by 36 percent of respondents, is among the container options being used to streamline management and release. And the use of Splunk by 26 percent of respondents hints at the increasing need to track progress across a multitude of tools.



DEVOPS SOFTWARE USAGE

And yet, just 7 percent of respondents say they are "well integrated" when it comes to integrating scaling Agile efforts with DevOps initiatives and other technical automation projects. More than 40 percent haven't started, or haven't even considered it. Another 26 percent say they are "just starting" and 26 percent are "in flight."

"If you're only partially integrated or haven't started, you're going to have a rough go of it," says cPrime VP of DevOps Brandon Cipes. "It's like if you have a car and engine and drive train, but the brakes aren't calibrated. That's a glaring problem, and it's not a performance machine. That's where 93 percent of respondents are." To be sure, Cipes notes that some of those respondents who don't rank DevOps as important might not actually have a technical tie-in to their Agile efforts, so it's not a concern to them. "But that's a rare small sliver of people," he says.

Atlassian's Schenck says people understand that technical enablement is key to the success of the continuous deployment/continuous delivery pipeline. The good news is that the latest version of SAFe (v4.5), released in June 2017, focuses on scalable DevOps and continuous delivery.

Cipes points to the rapid turnover in the list of companies in the Fortune 500 for evidence of the accelerated pace of change in today's marketplace and the demand for DevOps integration. Companies don't spend decades in the Fortune 500 anymore. His advice is the same echoed throughout our report: "If you don't embrace change, you're going to be left behind."



cPrime conducted "The State of Scaling Agile 2017" survey from May-August 2017 by email using the SurveyMonkey platform. We surveyed more than 5,000 individuals with a professed interest in Agile practices. Our goal was to get better insight into how companies look at scaling their Agile development methods and practices across the enterprise. Respondents from a wide variety of industries represented every level of management and company participation, from C-level to team member. We asked respondents to comment on their Agile framework and tools, the outcomes they seek from scaling Agile as well as outcomes they have achieved, what they consider to be the obstacles to scaling Agile in their organization, the pace of their progress, and their intentions about integrating DevOps with their Agile practice.

