



eBook

The powerful impact of value stream management in continual digital transformation



Software organizations face difficult, volatile conditions. Resilience and competitive advantage are key if they want to survive and thrive. Many are turning to one of the most challenging strategies they could implement to deliver these benefits: digital transformation.

Many of those following this path are losing their way because they lack the guidance to keep them focused on their goals. This eBook explains why value stream management (VSM) in software delivery is key to digital transformation success.

What is value stream management?

Value stream management (not to be confused with the broader concept of value stream mapping) is a systems-thinking approach focused on improving the flow of business value to the customer. It is critical in driving what VSM advocates call "concept to cash."

VSM helps guide business-critical work, ensuring that software teams devote the right effort to the right

tasks at the right time to deliver the maximum value to the customer. Senior executives understand its value; 53% of them believe that VSM connects software delivery practices to business outcomes, according to the **CloudBees Global Value Stream Management Survey**.

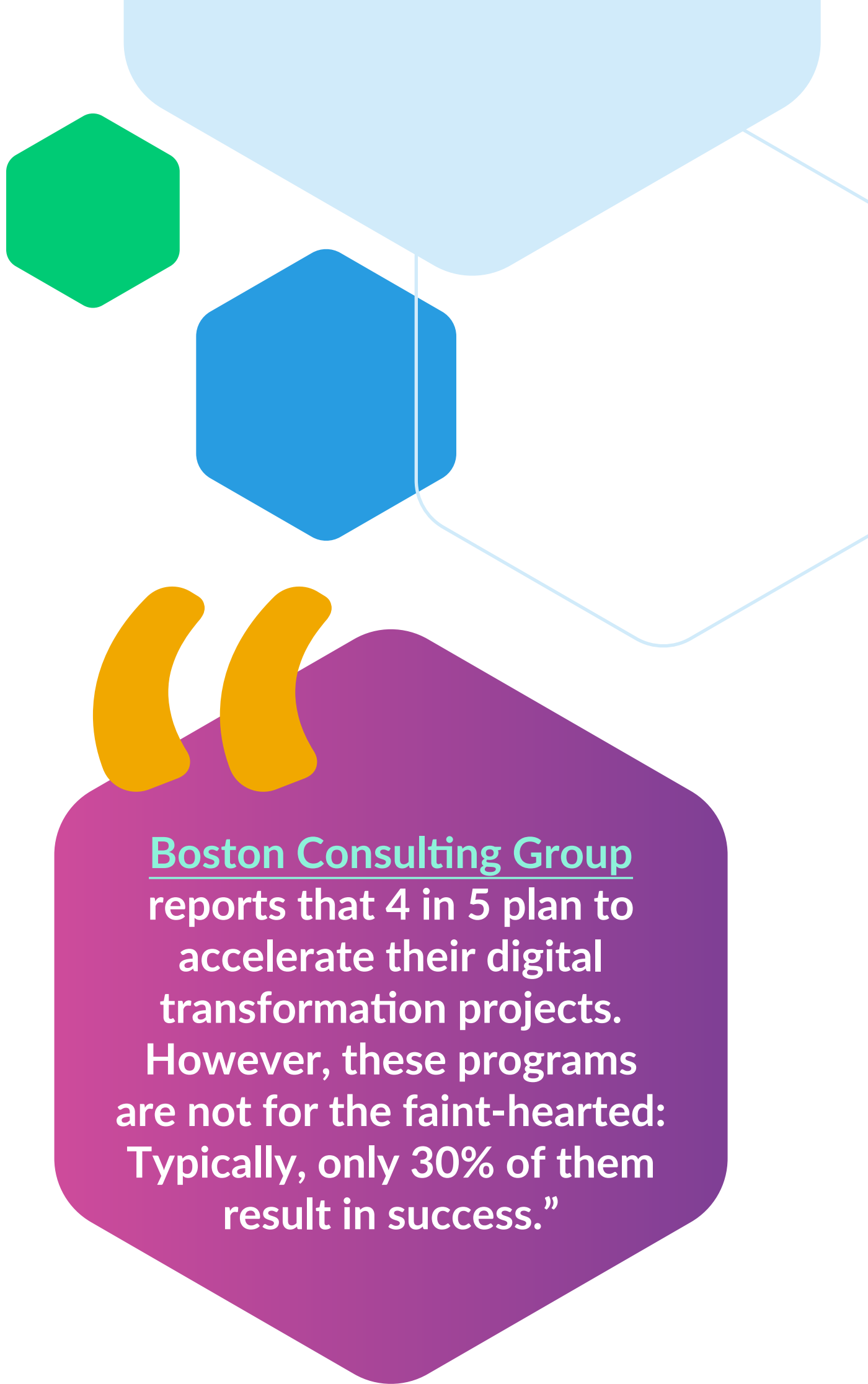


Why is value stream management important?

VSM's importance has grown with the importance of the software delivery team's criticality to how business gets done. The latter is no longer a matter of simple operations; it is a source of competitive advantage. Digital transformation exemplifies that by integrating technology throughout all areas of the business.

Digital transformation creates a technical platform for the rapid development of new products and services in response to evolving market needs. This can open up new revenue streams and even entirely new markets. But, to be effective, ongoing digital transformation efforts must drive continuous value.

Companies see the value of digital transformation. Boston Consulting Group reports that 4 in 5 plan to accelerate their digital transformation projects. However, these programs are not for the faint-hearted: Typically, only 30% of them result in success. One of the biggest reasons for this lack of success can be traced to a lack of clear, measurable goals.



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This is why VSM is crucial in digital transformation. It helps organizations tie goals and initiatives to business outcomes by prioritizing the most important digital transformation tasks. This helps to maximize the early return on investment, proving the business value of each deliverable within a broader digital transformation strategy.

VSM offers business managers more visibility into what software assets to expect, when to expect them, and why the jobs have been scheduled that way. It also offers a way for resource-constrained teams to justify their scheduling decisions based on the value that each task delivers.

VSM for software is still an emerging discipline for many, but they are already committed to it. According to CloudBees recent survey, 9 in 10 senior executives say companies that commit to VSM will be ahead in their digital transformation programs.



The pitfalls facing VSM adopters

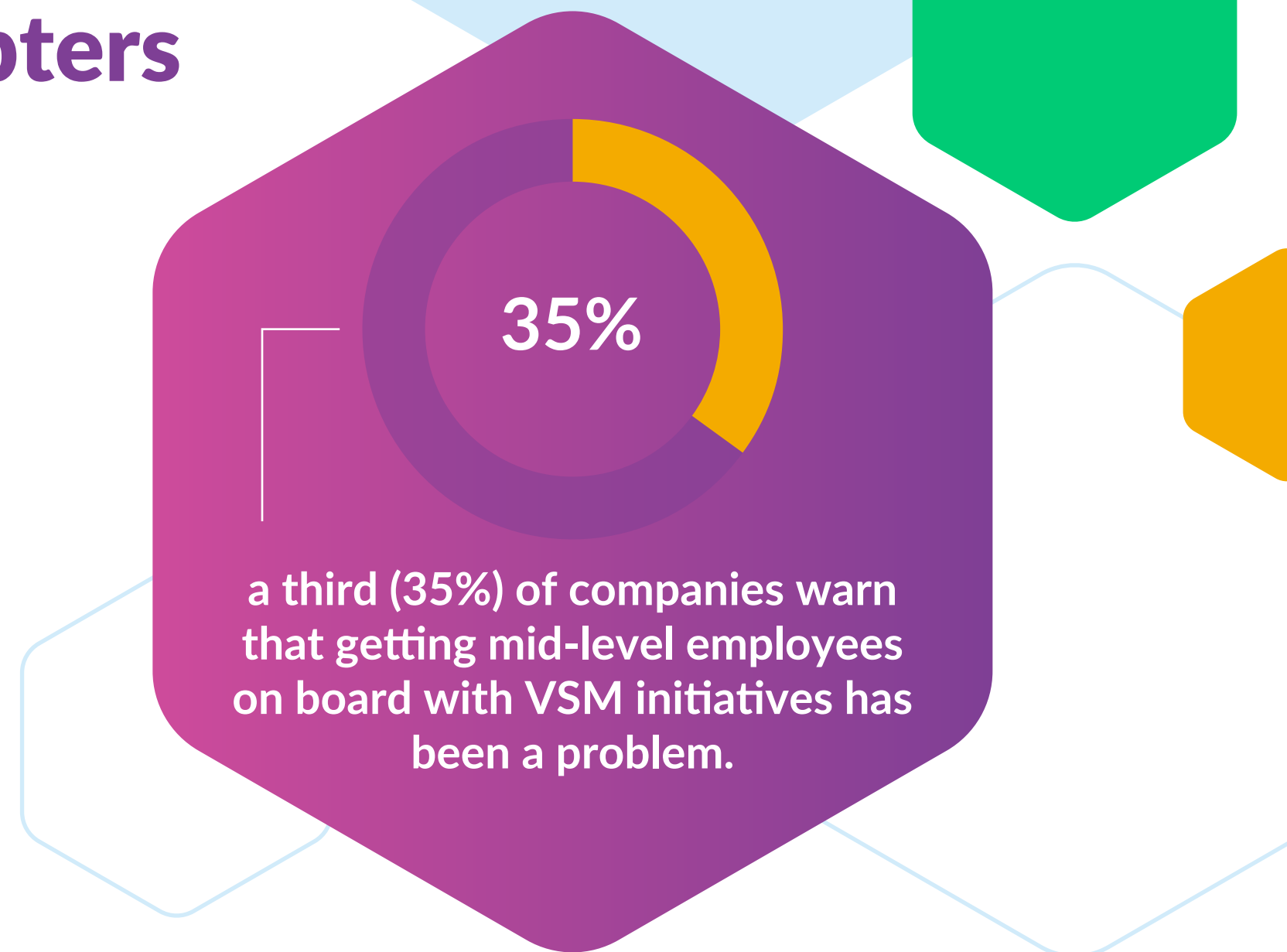
Like any sophisticated technique, VSM takes some maturity to apply well. There are many potential pitfalls along the way.

The first is a lack of patience. Companies often expect impressive results immediately, but it can take several business cycles to see the benefits. Aligning up front on what will be measured, what initial success looks like, and when to expect more transformational changes will help set organizations up for long-term success.

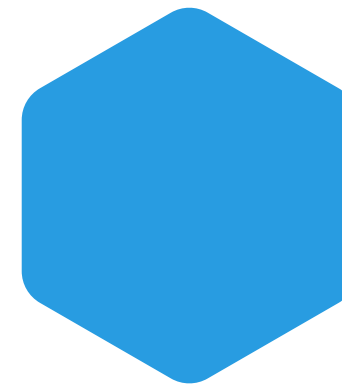
Another is getting buy-in from key stakeholders. Our recent survey found that just over a third (35%) of companies warn that getting mid-level employees on board with VSM initiatives has been a problem. Often, a lack of understanding stops people from buying in. Although 91% of executives are familiar with the term, only 50% define it accurately, while 72% admit that people in their organizations are confused about what it is or does.

This confusion extends to the wide range of products on the market. There are many tools, all offering

something different under the VSM label. For instance, many just offer the ability to pull in basic DORA metrics, but lack the context and intelligence needed to see if they are moving the needle. Yet many of them don't enable companies to scale their efforts across large, complex portfolios. Due to these reasons, a third of companies recognize that scaling VSM throughout the organization can prove to be difficult.



How to implement VSM successfully



Forward-thinking organizations can avoid these pitfalls and implement VSM with some astute planning. This begins with an understanding of your business goals and how to measure them.

A set of well-defined business goals in a measurable form provides a robust platform for tying them to your underlying software processes. Companies can then link each goal to a set of software deliverables. Having established objectives and key results (OKRs) can help here. They define key measurable results using chosen value metrics that support each objective.

Once you have mapped software delivery to goals, you can now begin to break down the business strategy and the components that support it into different groups. Each of these groups will be responsible for its own deliverables. Organizations must gather key value metrics from these groups that describe how the development process contributes to business value.

Effective VSM goes beyond capturing and displaying basic continuous integration and delivery (CI/CD) pipeline information. End-to-end orchestration spanning all automated and manual processes is key. Look for release orchestration features in your DevOps management system that will provide high-order visibility across pipelines.



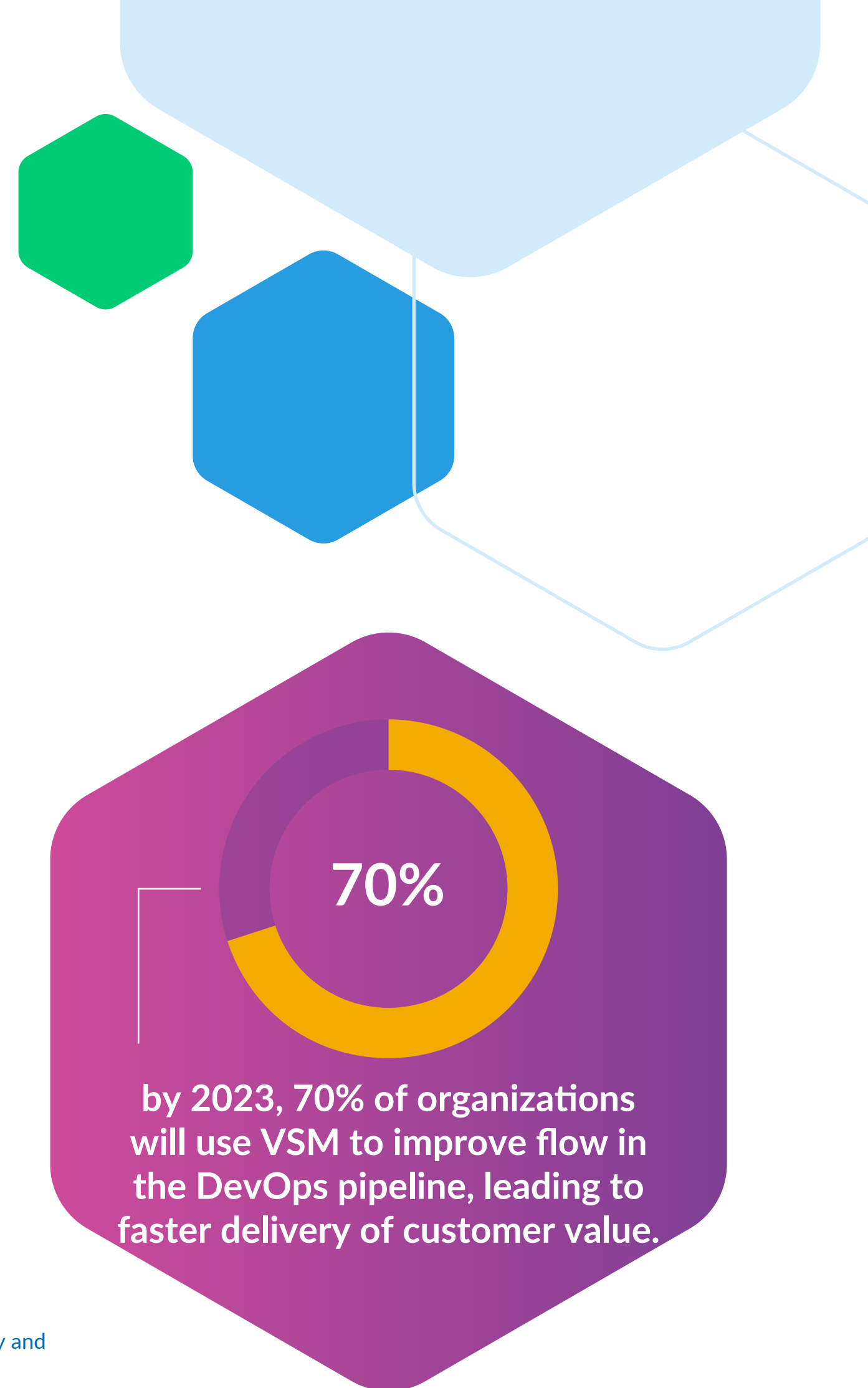
The use of mature development pipelines to support VSM is growing. Gartner® Market Guide for Value Stream Management Platforms (VSMP) notes that, by 2023, 70% of organizations will use VSM to improve flow in the DevOps pipeline, leading to faster delivery of customer value.

Technical tools alone won't get VSM over the line, though; just as with DevOps itself, success also requires cultural change. Auditing the existing organizational culture is the first step here to determine peoples' working styles. This calls for input across all stakeholders, from software delivery managers to line-of-business users. Are they aggressively innovative or risk-averse? Do they have a hands-on management style, or do they "fire and forget?"

This cultural audit provides a framework for gap analysis. It helps define how much your organizational culture must change to support a value-driven digital transformation project.

From here, companies can engage senior executives and work to align internal teams, explaining how each team, including software delivery, supports the business strategy and serves customers' needs. A critical part of this step involves defining who owns the VSM initiative. At the top level, this could be the transformation office. At the mid-management level, someone in each team should be responsible for VSM to keep an eye on customer value at every stage in the process.

Gartner, Market Guide for Value Stream Management Platforms, 10 November 2021, Hassan Ennaciri, et, al. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.



Unify VSM through a cohesive value stream management platform

The critical part of a VSM initiative—and where many adopters fall down—is its cross-team scope. This should not be a single-team initiative. Think of VSM and the digital transformation that it supports as program-level activities, not just discrete projects. They are organization-wide, and both their cultural and technical components must reflect that.

With this scope in mind, choosing the correct value stream management platform is vital. This platform should provide end-to-end visibility and insights into the performance, quality, and value of products across all teams. That calls for a tool that goes beyond mere CI/CD pipeline management. It should include release orchestration capabilities to ingest data in real-time across all pipelines, and unify both automated and manual processes to connect software delivery with business outcomes.



Using a mature VSMP enables companies to track the metrics for improving software delivery flow, which is a fundamental tenet of VSM. Metrics from Google's [DevOps Research and Assessment \(DORA\) team](#) are proven indicators of value across a wide range of use cases. These metrics are:

- **Lead time for changes:** The time between a commit and its move to production.
- **Deployment frequency:** How often an organization ships changes.
- **Mean time to recovery:** How long it takes to restore service after an outage.
- **Change failure rate:** The percentage of releases that result in downtime, degraded service, or rollbacks.

These metrics, when combined with measures of a software asset's value to the business, offer a clear dashboard-driven view to quickly identify bottlenecks that threaten value delivery. A mature VSMP also

helps to govern the entire software delivery process through cross-team communication, and allows them to remove those bottlenecks when found.



Consider CloudBees' integrated software delivery platform

An effective VSM project can help reduce the unnecessary effort that so many teams spend delivering the wrong software. It combines technical software delivery performance metrics with a robust understanding of the software's value to the customer and the business. It is a linchpin in effective digital transformation, enabling companies to close the circle and unify the technical and business aspects of their digital transformation.

As a leader in software delivery management, CloudBees offers an integrated solution that spans DevOps management and release orchestration to provide the higher-order visibility necessary for a firmly rooted VSM program. CloudBees' VSM solution integrates with many tools at all stages in the software delivery process, enabling companies to include individual software development teams in the VSM ecosystem with minimal disruption.



Contact a CloudBees expert today to help kick-start your VSM process.



CloudBees, Inc., 4 North 2nd Street, Suite 1270 San José, CA 95113 United States
www.cloudbees.com • info@cloudbees.com

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