

Agile Data Discipline: The Foundation for Predictive Planning

Agile methods help companies respond to change, beat the competition and build high-quality products that customers want. They achieve this by closely aligning development work to business priorities. This sounds relatively straightforward at a project level, but what happens when an organization is unable to align strategy to execution across departments or teams due to internal silos and/or a lack of clear data insights? As organizations advance in agile maturity, so do their data analytic needs. Compiling and synchronizing the data of a few agile teams is significantly different than rolling up data across many teams or an entire portfolio.

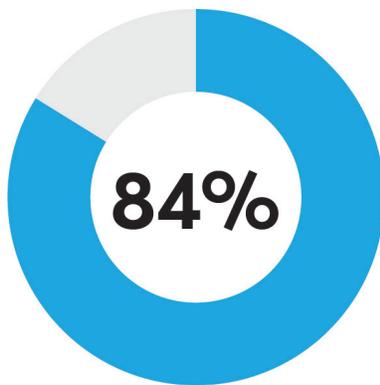
Without a clear picture of how teams are delivering their work, organizations may be flying blind when it comes to understanding the delivery of their products or services.

Why You Need Metrics and Data

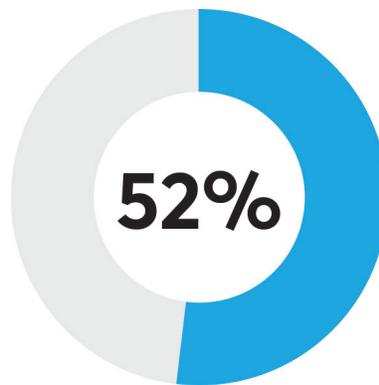
Effective metrics and measurements are critical to running a high-performance business. Properly applied, they lead to better insights, better decisions, and better business outcomes. They provide feedback to spark improvement and create learning opportunities. They help you identify the outcomes that drive business goals.

Unfortunately, many businesses have not implemented the tools to measure agility within their organizations, or they are failing to effectively use the tools they have. This paper is your guide to understanding why agile data is important and how accurate metrics can make or break your efforts to successfully scale agile across your organization.

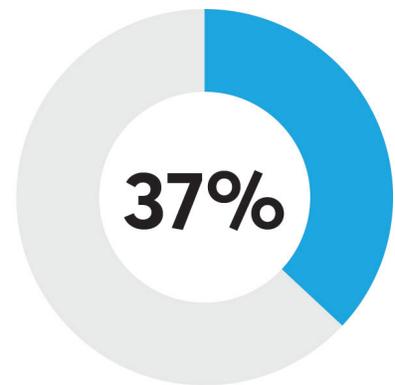
Data-Driven Decisions Stats



84 percent of U.S. organizations believe data is integral to forming strategy¹



52 percent of U.S. organizations consider the speed of their insight generation to be constrained by processes²



Only 37 percent of product managers stated their efforts are aligned with their firm's business strategy³

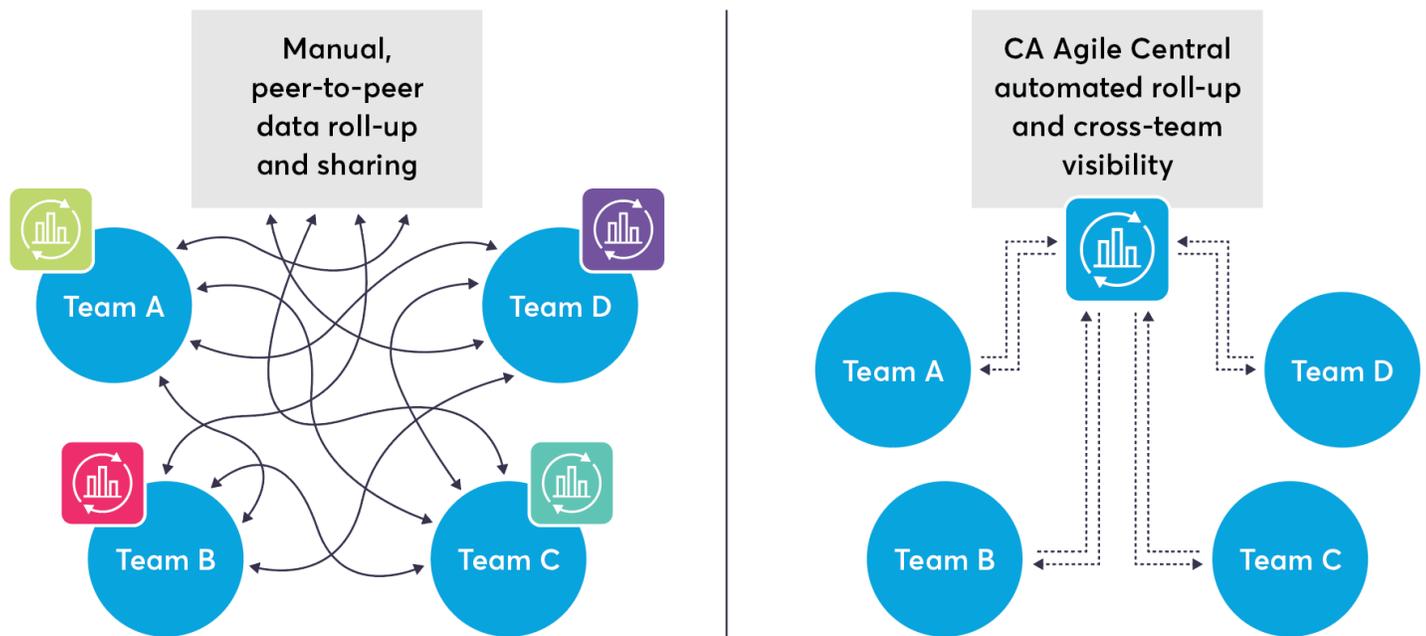
See People, Time and Work in a Predictable Way

Every team, department and organization should rely on data to make important decisions that steer the business. What many organizations lack is a way to clearly understand, prioritize and utilize the data they have. For agile to be successful, organizations need to establish data visibility and transparency at every level, from portfolio, to project, to initiative, to individual work hierarchies. This starts with a clear data reporting structure and with the right agile software solution.

Setting data reporting standards helps teams understand how they are going to refer to, read out and analyze the data within their company. This type of "data discipline" promotes the standardization of data across teams, projects and work. But agreeing on a data infrastructure is only the first step. All of your organization, team and work-task information still needs a centralized system of record for proper utilization. Without a centralized database (and a good agile software solution), data management becomes an extremely manual task. When you establish a data schema for your team-level, day-to-day work within a centralized system of record, all teams can start down the path toward better data accessibility, roll-ups, comprehension and insight.

But this type of reporting is not the end-all, be-all for most organizations. To have a full and comprehensive readout of agile work, teams need to be able to slice their data any way they want to accurately reflect the work of the organization as a whole—which is where a good agile software solution can truly pay dividends.

Data Discipline = Transformative Transparency



How Data Discipline Facilitates Predictive Insights and Planning

Formatting data in an organized fashion is the absolute vital first step toward understanding the work that is happening across an organization. Without this first step, agile metrics become tedious, and the hodgepodge of data becomes nearly unusable outside of the individual teams generating it. As a result, the organization does not know how to compare health, status, risks, dependencies, cadence or velocity across teams.

Benefits of common data reporting practices include:

- **Everyone is aligned to the priorities.** When everyone can see the work produced across an organization, teams are able to stay focused on the most important tasks, align on dependencies and ensure they meet important delivery timelines. This also prevents duplicative efforts and unsanctioned “work for the sake of work” from happening, as all eyes can see what’s getting done and how it impacts the overall business goals.
- **Backlog is highly prioritized.** Not only are teams able to align on the desired outcomes, they can also align on the prioritization of the work needed to meet and deliver on those business goals. This simplifies the decision-making process at a team level and keeps everyone on the same page.
- **Resources are better managed.** With a common data management structure built into your agile software, time management, velocity and planning become much easier. Leadership can see which teams are successfully delivering all their work during each sprint, as well as how much work they can deliver over time. With this glimpse into predictive delivery comes more predicative revenue.
- **KPIs are consistent.** If teams are given free rein to set up their own data structure and reporting, all reports and dashboards will be different. This makes rolling up the progress, status and health of initiatives time-consuming and painful. With a governed data structure—especially one that is pre-built into an agile software solution—all teams and departments can see the same type of reports and metrics all in one place, in a format that is familiar to everyone.
- **Transparency is easier to achieve.** While no one expects a project to go awry, it does happen. The sooner you can recognize that a project is going off track and identify the cause, the sooner you can make course corrections to minimize the impact of the slippage. Giving all parts of an organization a centralized place to review progress in a standardized way promotes proactive change management and leads to greater success across all projects.
- **You can build better plans.** Standardized agile performance metrics—accessed through an ordered data schema—can boost an organization’s productivity, predictability, quality and responsiveness. But that’s just the beginning. When you have trusted insights based on comprehensive and consistent data, the pump is primed for deeper insights and more advanced data manipulation.

The Key to Measuring Agile Successes: Customer Data

To ensure continuous improvement of customer experience, metrics, data and analysis must answer why, not just what. Why is a feature not being used? Why are some customers churning? Why is a minor improvement driving a spike in adoption? As with agile, prioritizing customer value through measurement requires both organizational and cultural transformation.

Here’s a blueprint for using agile data to measure value.

- **Step 1: Focus on the questions.**
The questions you are working to answer must become your true north. Instrumentation, data collection and analytics are simply a means to an end. Technology is a powerful tool, but it can’t tell you the questions that matter to your customers and your business. Make sure that the answers to your questions drive specific, meaningful action and, above all, customer value.
- **Step 2: Measure for insights.**
It will be tempting to over-instrument code and infrastructure and to collect massive amounts of data that will end up being just another management headache. Resist the urge and start small, concentrating on a specific area to demonstrate value. Keep in mind that you won’t always know what data will be valuable ahead of time, so you will need to be speculative. Don’t be afraid to over-collect strategically as long as doing so does not become an operational burden.

- **Step 3: Run experiments.**

Analytics allow you to validate the results of proposed optimizations before adopting them at scale. Use them to guide ongoing experiments and predict changes that will improve the customer experience. Armed with insights, you can then make changes to your service—or provide two different versions at the same time—and measure customer response to inform your product development. Customer insights are the best way to improve customer value; just be careful not to experiment at the expense of your customers' experience.

- **Step 4: Optimize for the business.**

The insights gained from targeted measurement can inform your business, and your business needs should inform the insights you set out to obtain. Your analytics are central to your ability to understand your customers, who, in turn, help to shape the evolution of your products and business. The goal is to create a continuous feedback loop. Integrate customer-facing measures such as Net Promoter Score (NPS) to track your progress and to help guide the evolution of your applications and services. Don't get distracted by the data itself. Instrumentation and data collection are important, but only if they help you answer questions that matter to the customer and to the business.

We're Tracking Agile Metrics—How Come It's Not Working?

Successful adoption of agile methodologies is not just about the processes, guidelines and frameworks. It's about the organization's willingness to embrace the cultural change that accompanies them. Those organizations that attempt one without the other often find themselves suffering from incomplete successes.

Here are a few common pitfalls that companies encounter when attempting to leverage their newfound agile insights inappropriately.

- **Mistake 1: Using metrics to drive behavioral change vs. leading with culture.**

The key to effective agile measurement is to think of your data in terms of constructive feedback—not as a traditional lever to motivate behavior, and not as a goal unto itself. Using analytics as a lever often devolves into keeping score, which is where we enter the dark side of measurement. Agile metrics need to answer questions that drive specific, meaningful action, and in order to be receptive to them, your teams need to embrace a culture that is focused on customer value, not just metrics.

- **Mistake 2: Data illusions vs. data delusions.**

Understanding how all of your organization's projects, teams and tasks roll up into a data hierarchy is a critical component in interpreting future data readouts. It is important to sketch out the entire data chain of measurements and aggregations within the organization early on. If this exercise hasn't been properly executed, you may soon discover interesting agile metric anomalies. This data discipline exercise has two main purposes: 1) to expose any potential usage side effects regarding how teams are using their agile tool, and 2) to expose any oddities in the agile process being used across the teams. As a result of these early data schema explorations, you can better identify metric issues further down the line and respond appropriately to potential data inconsistencies.

- **Mistake 3: Lopsided vs. comprehensive measurements.**

If you try to measure agile development in a pre-agile way, you're bound to fail. A common mistake organizations make with agile metrics is using single-dimensional metrics and failing to consider the various aspects of effective delivery. If you focus all measurement on one aspect of performance, such as productivity, you'll likely see other aspects, such as quality, customer satisfaction and predictability, suffer. It's important to create a metrics feedback loop with at least one measure from each of these four areas: 1) Do it fast. 2) Do it right. 3) Do it on time. 4) Keep doing it.

- **Mistake 4: Convenient metrics vs. the right metrics.**

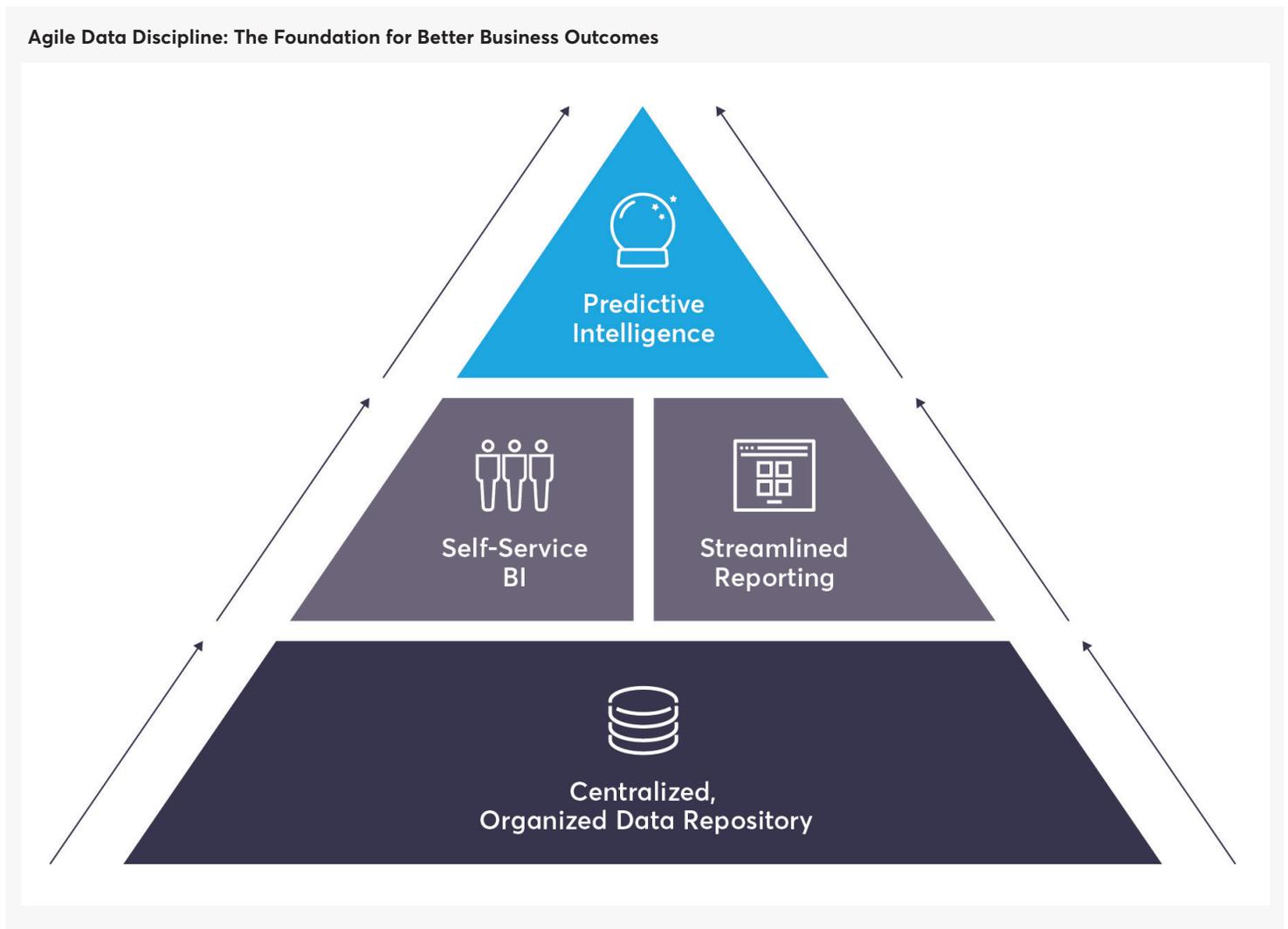
Better data leads to better insights, which lead to better decisions and eventually better outcomes. With this chain of effect in mind, many people start by choosing measurements that are easy to acquire. But measuring what's easy can often drive the wrong behavior. Measure and analyze the metrics that are most important to delivering customer value, and everything else will fall into place.

- **Mistake 5: Complex vs. accessible metrics.**

Yes, your data should be able to accurately depict the work within your organization, but without sacrificing readability and usability. If only two people in the entire organization are able to accurately explain the agile metrics coming out of your teams, you may want to reconsider how and what you're measuring. The goal of creating organizational data visibility is to create a sense of community and shared responsibility. Data that requires specialized expertise to access or interpret is the antithesis of an agile culture and can end up preventing the very transparency it was intended to promote.

The Future: Predictive Planning and Big Data

As teams mature in their adoption of agile processes and methods, their approach to data matures as well, opening up a whole host of opportunities for your organization. While you may just be starting your agile data journey, know that there is a bright future ahead for your agile metrics, and it starts with concerted efforts around gaining true shared visibility into the agile work your organization is doing.



The future of planning lies in customized data reporting and manipulation with big data analysis. This will allow disparate pieces of information to be aggregated and compared, effectively slicing and dicing the metrics any way an organization needs. Reports can be created to fit the shape of the roles and teams that need them and accessed in a way that is relevant to each individual user.

But as you start down this path, remember that the old adage “you get out what you put in” also holds true for how an organization uses its data. This is why that critical first step of organizing and housing your agile work in a centralized system with a similar structure cannot be overlooked. Without this simple alignment, advanced metrics and analysis are nearly impossible. And it is those advanced metrics that are the key to truly predictive planning, as well as many other exciting capabilities and technologies that can help you develop true business agility.

Why CA Agile Central?

CA Agile Central is an enterprise-class platform built from the inside out to help organizations scale their agile development practices. It is the only agile software solution built to help teams develop true data discipline, which is the foundation for cross-team visibility, coordination, rollups and a clear top-to-bottom connection of strategy with execution across multiple teams. CA Agile Central was also architected with easy-to-follow internal structure for establishing organizational, project, initiative, program and work hierarchies that support agile planning, tracking and delivery. With this construct in mind, and your organization's agile data all in one place, the goal of truly predictive plans can become a reality.

For more information, please visit ca.com/scaling-agile

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