Agile Velocity

WHITE PAPER

AGILE FOR EXECUTIVES

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IT'S 2AM. WHAT'S KEEPING YOU UP?

Hopefully, it's not work, but that's often the case. Work plays a big factor in stress level, and stress can mess with your sleep. As a leader of your organization, stress is in unlimited supply. There are events from the past, concerns of the present, and worries for the future that keep you up at night.

IT is blocking progress. Products aren't being delivered as intended. Poor trust is eroding confidence. Team members are looking for shinier and more innovative companies. How do you keep business off your back and keep teams happy?

Your director of product mentioned Agile a few months ago, claiming it's gone from buzzword to de facto. But back then, things weren't so bad. The project was "green" and had been since the beginning. Then they found the bug. And another one. And another. Now, stakeholders aren't even sure the team has built the right thing.

Maybe it's time to investigate Agile.

WHAT IS AGILE, REALLY?

Traditional vs. Agile

The traditional--or Waterfall--process plans the entire project before development begins. Project phases are stacked one after the other like dominoes, and each phase must be completed before teams can progress to the next.

The sequence is the same for every project.

Waterfall was born from manufacturing and construction environments, where work marched steadily toward an end goal, and very little change was expected after each phase was complete. In construction, change after the project is "completed" is almost impossible.

Waterfall methodology is useful when all project requirements are known and when the environment needs a standard approach. Waterfall isn't useful when project requirements may be unknown, because it's a rigid framework that is not equipped to handle change.

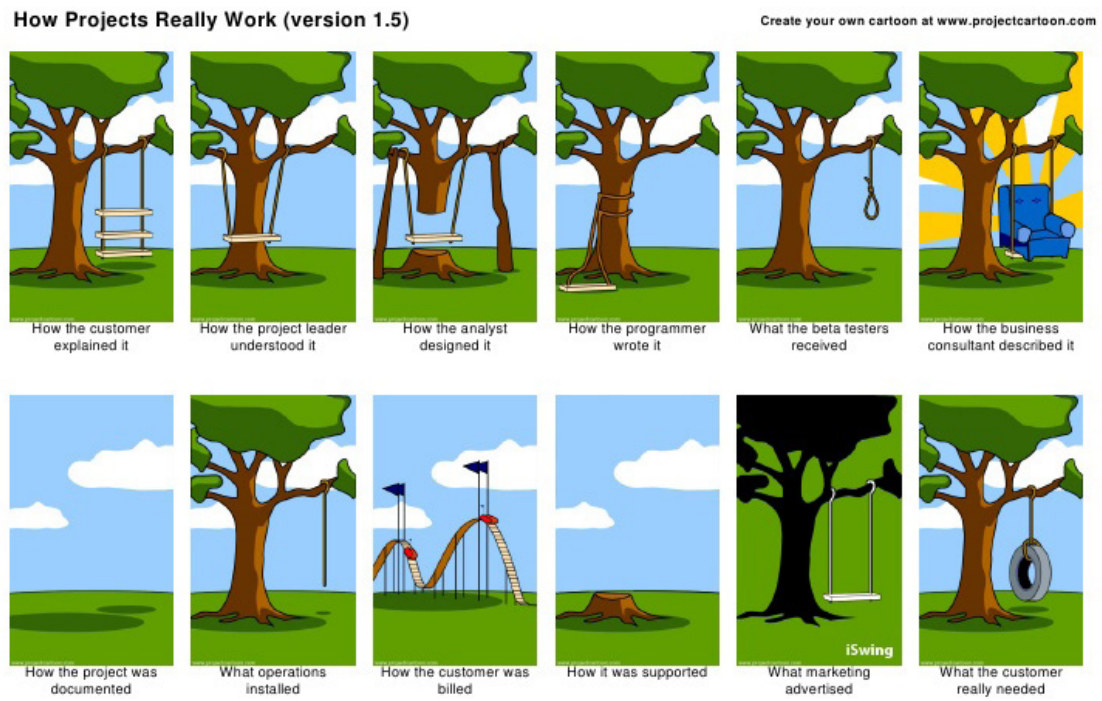
Why Agile Works Best in Changing Environments

Many of us have lived in a world of three false assumptions:

1. The customer knows what they want
2. The developers know how to build it
3. Nothing will change along the way

The reality is, we live in a world of constant discovery:

1. The customer discovers what they want
2. The developers discover how to build it
3. Many things change along the way



Mythical Certainty is an illusion of accuracy in our estimates and in our understanding of the user's needs.

Traditional methods lead to more risk, and there are many examples in the last decade showcasing its failings with regard to creative knowledge work.

Unlike waterfall, Agile has baked in flexibility in its practices, processes, and culture, and it can handle changes as they come.

In Agile, each project phase is completed in a cycle to create a product increment. The end goal of each cycle is to have developed a product increment that is "shippable." The ability of Agile teams to focus on becoming "shippable" allowing predictability, adaptability, and speed.

With Agile...

- Work is limited, allowing teams to focus, swarm, and complete items at a faster rate
- More product learning occurs through shorter feedback loops
- Teams self-organize and become empowered
- A continuous improvement culture is cultivated, allowing an organization to adapt to its industry

COMMON TECHNOLOGY PROBLEMS & AGILE SOLUTIONS

Trending Problems Among Tech Teams

"Nobody else has our problems!"
"The challenges we face are unique to our environment!"

Consultants hear this all the time, but it could not be further from the truth. Many tech organizations and departments are plagued by the same issues:

- Slow and unpredictable delivery
- Products not matching original expectations
- Lack of visibility of progress
- Stalled innovation
- An inability to adapt to change

As tech evolves and these issues are exacerbated, more companies are turning to Agile as an antidote. In the 2016 State of Agile report by VersionOne, 56% of respondents cited "ability to manage changing priorities" as a reason for going Agile, second only to accelerating product delivery. For adoptive companies, Agile has proven to deliver on its promises: The same report shows more than 80% of respondents cited real improvements in their ability to manage changing priorities and increase project visibility.

How can your company apply Agile to achieve the same results?

AGILE SOLUTIONS IN REAL LIFE

Predictable & Accelerated Delivery

If the meteorologist predicts rain, people bring umbrellas. What happens if only 5% of the meteorologists rain predictions are true?

The CTO whose promises are never delivered must overcome the same challenges. It is not a surprise that 44% of the 2016 State of Agile participants listed predictability as the reason for adopting Agile.

Increased Productivity

Surely adding more developers to the team will fix these issues. Hiring talent is always an option for over strapped teams.

However, a person's salary is not the only line item that goes against budget. There is also productivity loss due to training a new employee, especially for organizations with a complicated portfolio. Including training, a new developer may actually cost the company double their salary. More developers also mean more complexity and a higher overhead cost.

Manage Changing Priorities

In software development, change is constant. New technology can affect the way products are built, the competitive landscape can shift overnight, and customers change their minds. Agile embraces change and frames it as a vehicle for delivering more value to the user. To minimize impact and absorb change, flexibility is sewed into Agile in three ways:

1. Iterative Development

For teams using the Scrum framework, teams commit to reaching a potentially shippable state every 2 - 4 weeks. At the end of the sprint, the team demos their work to business stakeholders to get feedback. Stakeholders are involved throughout the entire process instead of waiting until the very end, which is very risky.

Once the product is deployed to users, teams gather usage and sentiment data which is the true product test. If the product fails, then the team knows right away that change is in order.

2. Backlog Grooming

It is a fallacy that teams do not plan in Agile. It is the opposite. In Agile, we plan and replan continuously to adapt to changes in environment and industry. Backlog grooming is the practice of reviewing and prioritizing user stories on a regular basis so that work is ready to pull yet the "plan" remains flexible. It is a highly collaborative process where the team is encouraged to ask product owners about the work at hand before it is prioritized by business value.

Improved Visibility

Technology organizations suffer from vision problems: lack of visibility for when products are completed, inability to see risks, not knowing the impact of change, and blindly following a plan instead of focusing on value. There is a much-cited statistic in the industry that 64 percent of features built are never or rarely used.

Agile helps remove blinders when it comes to delivery by breaking down big projects into smaller product increments and swarming to get those complete. The increased collaborating between stakeholders and the team and shorter feedback loops helps see what increment provided value. Agile not only helps you build the product right, but also build the right product.

Innovation

Technology is fueling innovation. It is a race for the fleet of self- driving cars, a low-cost space rocket, and the next social platform. To survive, a company must not only keep pace but win the competition. Only 14% of the 1955's Fortune 500 companies are still on the list today and experts predict more giants will fall this year.

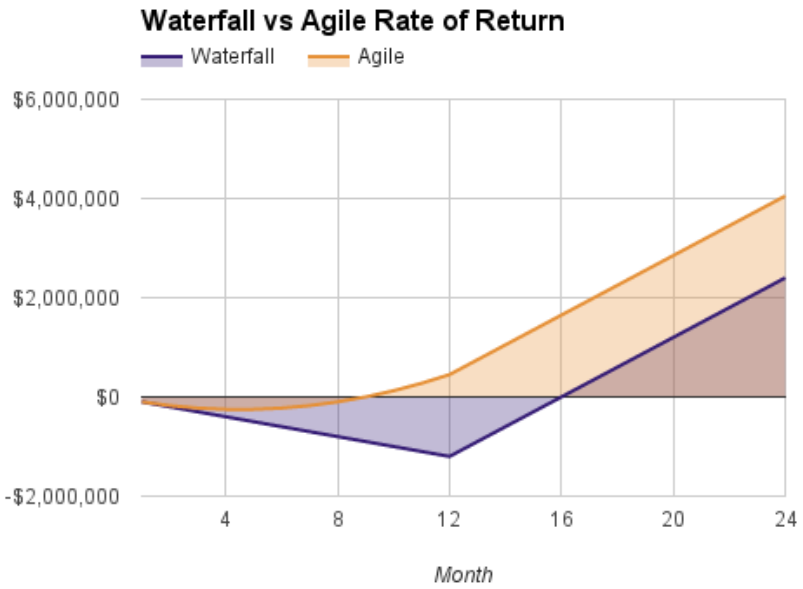
Frequent deployment means accelerated learning. More learning means less risk about products. Innovation then becomes less about making the right big gamble, but iterating on an idea and receiving faster. It is not about stumbling upon the unicorn, but a data-driven search for the right product. It is about working with a team to accelerate the learning cycle on the journey to the right product.

Faster Return On Investment

Accelerated learning and frequent deployment means organizations can approach development as a big bang investment. Unlike traditional development, Agile allows organizations to recoup investments in a shorter time frame. Consider scenario A and scenario B:

> **Organization A** is investing 100K a month for the next 12 months with a 3x annualized return. At the end of the project, the organization has spent $1,000,000. Since organization A is using waterfall, the product deploys at month 13. Assuming the original requirements are correct and the product is accepted, the organization breaks even at 16 months.

Organization B is also investing 100K a month for the next 12 months on a product with a 3x annualized return. However, organization B is using Agile.



Organization B becomes becomes profitable at month 9, 5 months before Organization A.

At month two, organization B begins to deliver a percentage of product value. Value is delivered incrementally over the next 10 months. The product is complete at month 12.

AGILE: IT'S NOT THAT EASY

With all of the carrots dangling in front of teams and executives, it is not a surprise many have pilot adoptions or even full-scale Agile transformations. However, despite their best effort, more than half of all Agile projects ultimately fail due to the following reasons:

1. Focusing only on change at the team level

Agile encourages surfacing and escalation of problems, requiring rapid response from management. Unfortunately, leaders don't always recognize when they need to step in. It's common for leadership to believe that as long as the team is implementing Scrum and all of its trappings, the Agile transformation is going smoothly. As the team continues its journey, however, it will likely face organizational roadblocks that cannot be removed without leadership's support

Agile is more than a process change; It is also a mindset and culture shift. Therefore leadership behavior needs to shift as well. Leadership can't assume they can operate as normal while the team changes. It starts at the top by creating high-trust environments.

2. Inappropriate team structures

Team coordination is essential to Agile success, yet the habitual segmentation of teams that happens with traditional processes can make unification a rocky road. While a component team is based on code ownership and specialist functions, a feature team has the capability to build a complete working product or a feature, since it has all the necessary skills in one team.

Feature teams have been around for some time and have been used with large products, like telecom systems. However, Agile and Scrum have brought feature teams to the forefront, because of the their many advantages. Since the ultimate goal of an Agile team is to deliver value, a cross-functional feature team is a great best enabler of success. These teams have key traits that help to facilitate Agile:

1. Feature Teams Are Aligned to Value Delivery

Component teams focus on lines of code completed. Product (feature) teams tackle features prioritized to deliver the most customer value.

2. Feature Teams Are More Predictable

Feature teams are focused on delivering a working product or feature. While the team makeup isn't permanent, feature teams don't change with every iteration, thus creating a more stable work environment.

3. Feature Teams Increase Learning

Increased collaboration and communication increases learning and, subsequently, organizational flexibility. Over time, highly functional teams, as entities, become capable of taking on work that's of a different domain than their previous or current project.

4. Feature Teams Limit Dependencies Between Other Feature Teams

Since feature teams are product/feature-based, not code-based, the entire project doesn't fall apart if a unit falls behind. A system built on component teams is like dominos stacked behind each other; If one falls, they all fall down. With less dependencies, feature teams are able to deliver faster.

3. Lack Of Dedicated ScrumMasters And Product Owners

When a company is looking to increase time-to-market and productivity, dedicated Product Owners and ScrumMasters are one solution.

Let's use the the analogy of a sailing ship to understand how Product Owners and ScrumMasters create more productive teams.

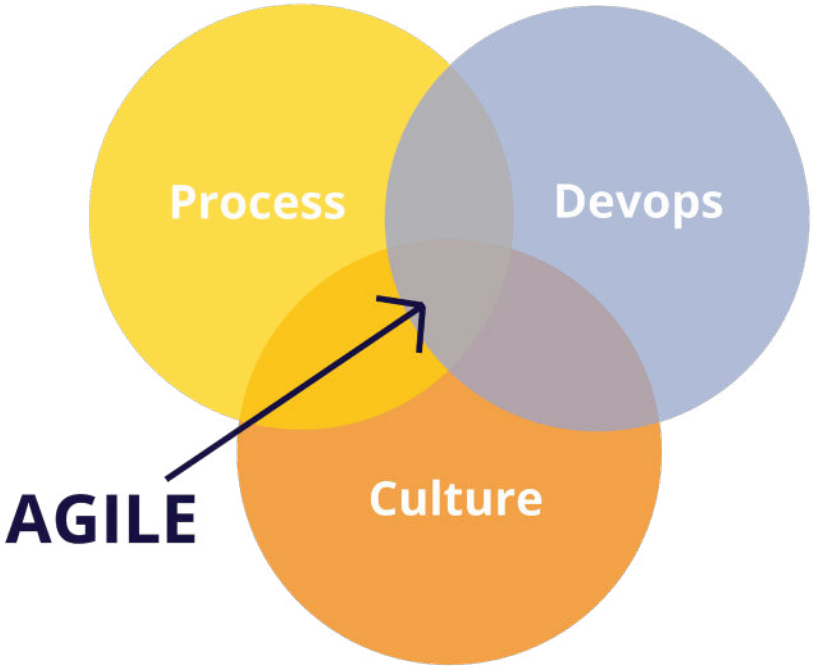
The **ScrumMaster** acts as Captain of the ship to guide teams through the learning process and push continuous improvements. They use their knowledge and expertise of Agile to motivate the team, remove roadblocks and help the team function better as one. Without a dedicated ScrumMaster, the team could be slower due to impediments and become blind to the work because of limited perspective. The ScrumMaster should pay for themselves through the increased productivity of the teams they support.

The **Product Owner** is the Navigator of the ship. They set the team's direction and ensures it stays on course at all times. If the Product Owner is not effective, there will be many changes in direction resulting in wasted energy and a delayed and expensive journey.

The **Agile Development team** is the ship's crew, which sets the sails for best impact based on the chosen course.

4. Believing Agile Is Only A Process Change

A common misconception leaders have with an Agile transformation is that only processes are affected. In order to complete an Agile transformation and achieve its full benefits, an organization should be prepared to work on processes, practices, culture and leadership mindset.



DevOps defintion: The practice of operations and development engineers working together through the entire service lifecycle, from design through the development process to production

Often, culture is the hardest to budge. Of the top five barriers to Agile adoption, three relate to company culture:

1. Ability to change organizational culture (55%)
2. General organizational resistance to change (42%)
3. Management support (38%)

The Harvard Business Review in the 2016 article "Embracing Agile" states that while leadership may vocally state their support of the transformation, and may even be the original champion, their misconceptions present a huge challenge. It writes, "Consequently, [leaders] unwittingly continue to manage in ways that run counter to Agile principles and practices, undermining the effectiveness of Agile teams in units that report to them."

WHAT IT TAKES TO TRULY TRANSFORM

Agile is not a spectator sport; Leadership needs to step up to the plate. As mentioned, one of the keys to a successful Agile adoption is the support of executive leadership. This support is more than simply approval; It involves an understanding of their role in the journey and active participation.

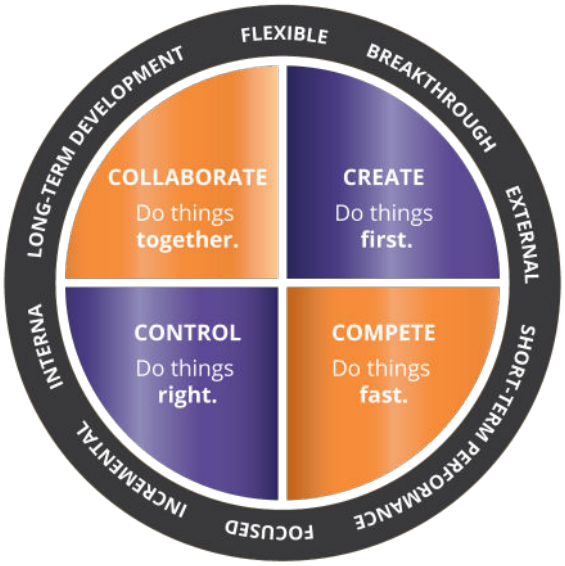
Leadership affects the transformation in two ways: culture and organizational structure.

Team and organizational structures

There are certain agility blockers that team members cannot move on their own, like restructuring from component teams to feature teams. As described earlier, there are many advantages to the feature team structure, including increased learning, stability, and limiting dependencies. Most importantly, feature teams have the ability to complete the product increment.

Culture

Participants in the 2016 VersionOne report were asked what they feel the biggest blockers to agility are. Of the top five reasons, two of them are linked to culture: company culture at odds with Agile practices (41%) and lack of support for cultural transition (38%).



Agile is about:
Create – Innovating and building great products
Collaborate – Using cross-functional teams to drive results
Compete – Focusing on customers, outcomes and quick feedback

Within the competing values framework, Control and Create are at odds with one another. Most organizations are heavy on the Control quadrant and very light on the Create, Compete, and Collaborate quadrants. While Agile does implement components of Control, it only uses the minimum amount needed to add structure. It really plays more to the other three quadrants.

While Agile does implement components of Control, it only uses the minimum amount needed to add structure. It really plays more to the other three quadrants. Often, the culture at the Agile team level is different from the department level, which is very different from the organizational level. Any misalignment is breeding ground for conflict. Ideally, if you create scatter plots assessing the cultural values for each tier, they can be different, but they should still be balanced.

Agile Transformation Model

The transformation is an investment of budget, effort, and time. Productivity will slow as teams learn new processes and practices, and everyone will need to evaluate current organizational culture.

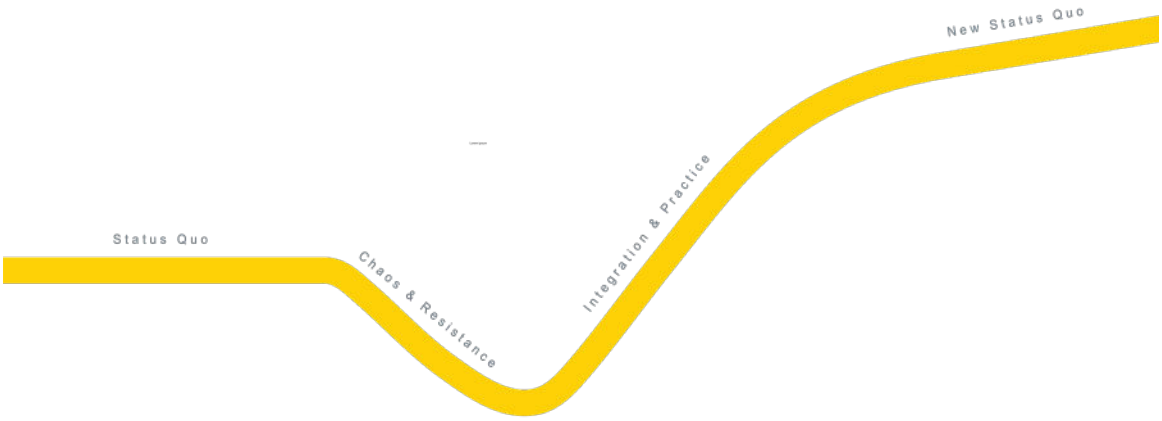
Before embarking on an Agile transformation, leadership and sponsors should assess readiness by trying to answer the following:

1. What is the organization/department struggling with?
2. What business outcomes do we hope to achieve?
3. Do we have the internal talent and knowledge to make the adoption successful?
4. How will we gauge the success of the transformation?
5. Are we willing to sacrifice some productivity with the intent to deliver more in the future?

Satir Model of Change

Developed by Virginia Satir, the Satir Change Model illustrates the impact of change on group performance over time. The five phases of the Satir model— old status quo, resistance, chaos, integration, and a higher status quo—are all commonly seen when teams adopt Agile.

In the picture below, imagine Agile is the newly introduced change or foreign element. Not pictured in the diagram is the fork in the road after the initial drop in productivity. Here, teams pursue one of two directions: Abandon their efforts and return to their previous status quo or they persevere and allow Agile to become a transforming idea,leading them to discover a new and improved status quo.

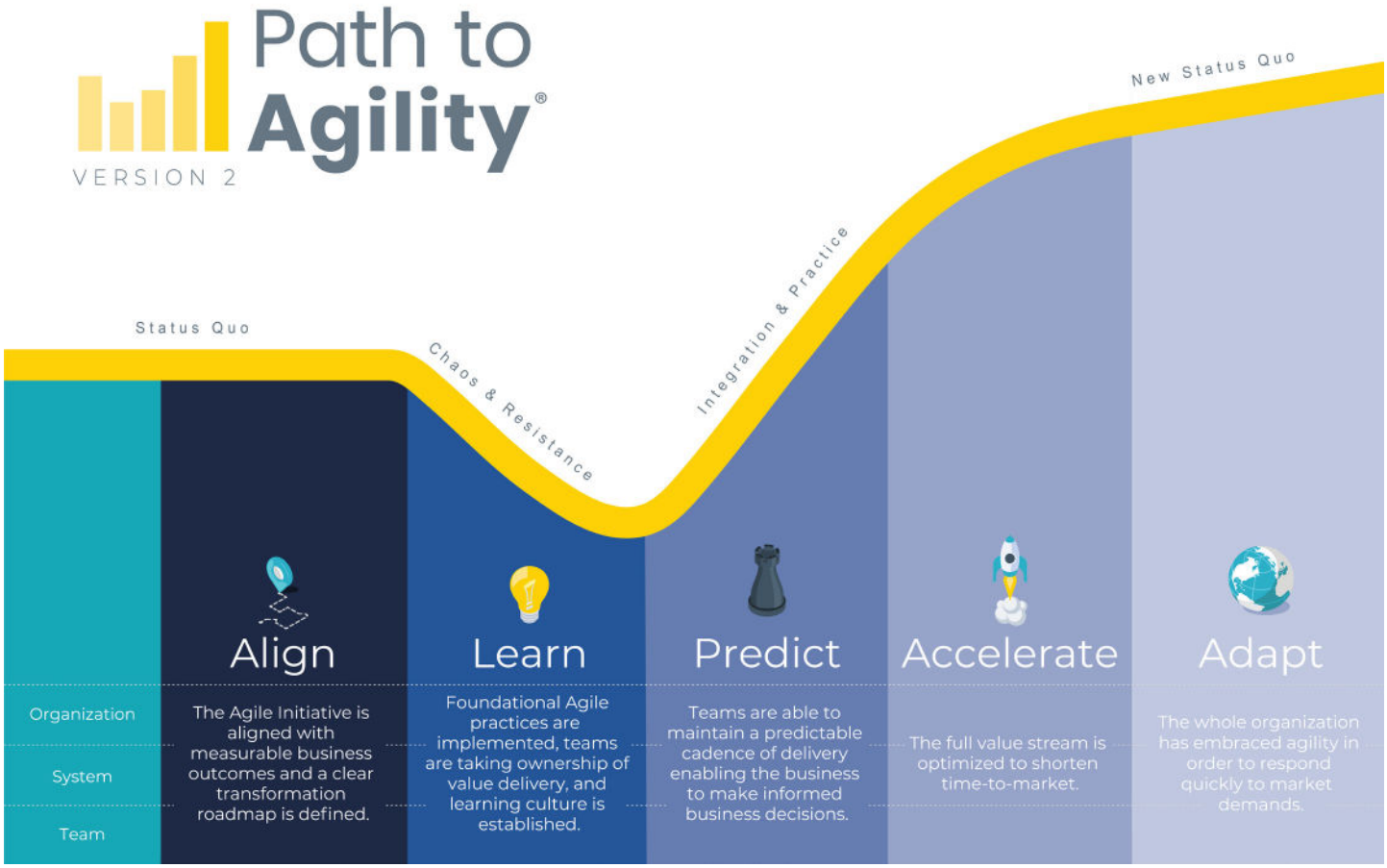


The Satir Change Model includes five phases: Old status quo, resistance, chaos, integration, and higher status quo

Path to Agility® Model

In order to complete an Agile transformation and achieve its full benefits, an organization should be prepared to work on processes, practices, and culture and leadership mindset.

Path to Agility® describes the activities and outcomes of a transformation and their impact on culture and business goals. While this is not a linear progression, there are dependencies between items.



Accelerate Change with an Agile Coach

Picture a new golfer on the course with a horrible swing. With frequent, regular practice the new golfer will have a better swing. How long it takes to improve depends on how often they are out on the course. If the golfer wanted to see improvements in a shorter period of time, they can hire a coach to help fix their swing. The same is true for Agile.

It will be difficult to shift from a requirements-first mentality to an Agile mindset. Teams will need help. Leadership will need help. And help will come in the form of training and coaching from experienced Agile professionals.

Approximately 38% of State of Agile participants reported "inconsistent Agile practices and processes is one of the reasons for a failed transformation." Leveraging proven Agile trainers to accelerate learning reduces the risk of a failed transformation.

ShuHaRi

During the Learn phase in the Path to Agility® or early in the transformation, it is helpful to have an experienced Agile coach to model practices, help the team work through processes, answer questions, and work with leadership to remove impediments. If there is not a teacher or coach involved, there is risk of creating bad practices or even going back to the old way of working. In Martin Fowler's ShuHaRi model, there are three stages of learning: Shu, Ha, and Ri.

In the **Shu** phase, learners follow the teacher's model exactly. According to Martin Fowler, students don't examine the "why" behind the task or explore other ways to achieving a goal. The coach leads, and the student follows.

In **Ha**, the student begins to understand the underlying principles and theories behind the techniques and practices. Students (or team members) also begin to take ownership of their processes and practices by integrating other teachings and learnings.
During **Ri**, students stop learning from others but improve their practice through introspection and continuous improvement. Team members will have their own way of being Agile--their unique modifications to practices and processes based on what works for them.

Agile coaches play a big role during Shu and Ha. It is helpful for them to be embedded during this time. Their involvement will taper off(as it should). However, teams may still find it valuable to have access to coaches for mentoring and support.

AGILE KEY LEVELS OF FOCUS: TEAM, LEADERSHIP, ORGANIZATION

Uprooting and upheaval are difficult to start and even more difficult to finish. However, that's essentially what is happening during an Agile transformation. It is hard but possible as long as the organization focuses on three things: supporting the team, optimizing the entire structure, and cultivating a new Agile leadership mindset.

Empower the team

The team is the building block of an Agile organization. Start your Agile initiative by making sure pilot teams are successful. Give them tools to improve DevOps practices, coaches to help teach new processes, and restructuring to feature teams.

Optimize the entire organization

When it comes to agility, it is best to watch the baton, not the runner. In this analogy, the track is the entire process from idea conception to delivery, the runners are employees, and the baton is business value. Making the organization Agile means optimizing the entire value stream, beyond the team level, inspecting where value flow is slowed or blocked, and then removing impediments.

Sharpen leadership skills and mindset

The Harvard Business Review in the 2016 article "Embracing Agile" states that while leadership may vocally state their support of the transformation, and may even be the original champion, their misconceptions present a huge challenge. It states, "Consequently, they unwittingly continue to manage in ways that run counter to Agile principles and practices, undermining the effectiveness of Agile teams in units that report to them."

Here are a few skills every leader should cultivate:

- Provide slack to learn
- Empower teams through servant leadership
- Use Kotter's 8 steps of change to lead the transformation. Create and communicate vision after the initiative is adopted, create a sense of urgency for completing the mission, and form a team to execute.

DOES AGILE DELIVER?

VersionOne reports that the top three reasons organizations adopt Agile include:

- Accelerate product delivery
- Enhance ability to manage changing priorities
- Increase productivity
- Enhance quality
- Enhance predictability

A vast majority of survey respondents (at least 81%) reported improvement on all five points.

Agile has rapidly taken over software development and is beginning to spread to other industries from marketing to human resources. Results include more leads, happier employees, shorter time-to-market, and more recruits. While it begins with a vision from one or two people, it takes work from leadership and the team to make it successful.

- Agile does work.
- Agile is hard to adopt, you need help.
- Agile is not a spectator sport. Leadership is part of the change.

ABOUT AGILE VELOCITY

We're a full-service transformation partner offering whole organization coaching, leadership and team coaching, and Agile training. By leveraging our propriatary Path to Agility® transformation approach, we advise clients on the best way to avoid failure and reach desired business outcomes as quickly as possible.

OUR SERVICES

Agile Transformation

Using our Path to Agility® Transformation framework, we orgs build the capabilities needed to achieve desired business goals with confidence.

Agile Assessment

Identify gaps, establish a baseline for the transformation moving forward, and determine key next steps for achieving your goals.

Agility Tune-up

Target the most pressing challenges that are keeping your team from achieving desired outcomes.

Agile Training

We utilize hands-on training techniques, demonstrations, and simulations to create an engaging, outcome-focused learning experience.

ABOUT DAVID HAWKS

Founder and Chief Agilist of Agile Velocity, David Hawks is a Certified Enterprise Coach and Certified Scrum Trainer who is passionate about helping organizations achieve true agility beyond the basic implementation of Agile practices.

David's primary focus is to guide leaders through their Agile transformation by helping to create successful transformation strategies and effectively manage organizational change with a focus on achieving real business results.

He received his Bachelor of Business Administration in Management Information Systems degree from the University of Texas at Austin.

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