



AGILE IT DELIVERY:

**IMPERATIVES FOR
GOVERNMENT SUCCESS**

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You've heard what all the buzz is about, and you're now ready to go agile. But do you have the support you need? Are you and your team fully committed to embracing agile? What challenges will you have to overcome? How do you make sure it's worth the investment? And where and how do you start?

Technology is the foundation for which people live, work and communicate. Every time a new digital or technological offering enters the market, people's expectations and demands transform. Businesses have proven adept at staying ahead of the game to quickly deliver innovative products and services that satisfy their customers through new advanced technology, business capabilities and agile methodologies. But with limited budgets and very specific compliance requirements, governments have had a difficult time keeping up. And yet, it is because of these challenges that governments can benefit the most from agile. So what's the secret to agile success in government?

Accenture and the National Association of State Chief Information Officers (NASCIO) surveyed and interviewed a number of state government leaders to find out. We asked them to describe their experiences with agile and then tell us where and to what extent they succeeded. Seven key factors emerged—all centered on people and their willingness to embrace this methodology and collaborate at every step. And it requires a clear plan of action.

But before you get started, what do you need to know?

ADOPT THE STYLE, **NOT THE TREND**

As a project delivery methodology rooted in iterative and incremental development, agile delivers differentiated, high-value solutions by relying on frequent inspection and feedback and focusing on constant adaptation to reach desired outcomes. But agile is not just a technology solution. To be truly effective, people must be at the center.

Success depends on collaboration between the government workforce, end users and the broader business ecosystem impacted by technology. It follows a three-layer approach, whereby developers, project managers (“scrum masters”) and clients from within the agency (“product owners”) commit to a common approach for how agile should function within the state—disintegrating silos and aligning them toward a shared goal.

WHAT IS AGILE?

An iterative project management methodology that delivers differentiated, high-value solutions in rapid deployments and functionality and relies on frequent feedback and adaptation to reach desired outcomes.

RECHARGE YOUR IT **FUNCTIONALITY**

In a digital world, challenges and opportunities emerge rapidly. Citizens expect their governments to keep up and to continuously provide up-to-date digital access and applications to public services.

In 2016, 85 percent of U.S. citizens expected the same or more from government digital services compared to commercial digital services.

And the demand is growing; in 2014, 73 percent of citizens expected the same or more from government digital services—an increase of 12 percent over the past two years—and citizens will likely continue to hold government to the same standards as their commercial counterparts.¹ To meet these demands, organizations need the technology infrastructure and supporting business processes that can empower them to adapt and deploy changes quickly and efficiently. This means relinquishing a legacy mindset and looking at ways to support agile within your existing environment.

Moreover, projects may evolve over time—technologies become outdated, regulations and policies are updated, strategies prove inefficient or ineffective in practice and requirements change. What this shows is that every project is unique and requires different approaches at different times. It relies on ongoing engagement with all stakeholders to be truly effective.

As business process owners explore new technology solutions and see what is possible, their requirements often change to include new functionality previously not needed or not possible with past technology capabilities. One size does not fit all. So while there is more upfront and intimate involvement, the continuous engagement mitigates problems that would be harder to fix if discovered in the future, saving both time and money in a remedy.

“We don’t want to fail fast; we want to correct fast,”

noted one chief information officer (CIO), who also advocated for shutting a project down early if it does not deliver instead of continuing to “fund something that doesn’t work in the end.”

¹ Accenture Research Survey of 3,311 U.S. Voting-Age Citizens completed online in March 2016

Governments today can't afford to waste precious resources on implementing projects that, in the end, fail or become obsolete. By using agile, they can realize their potential and achieve higher value for less. They avoid the massive risk associated with large projects that deliver everything at the end of a long project timeline. With a typical waterfall approach, product testing is often left to the end and becomes rushed as deadlines loom and the business faces competing commitments for time and staff. The business client and project team often feel the pressure to accept a large solution delivery without adequate testing. Agile helps alleviate the pressure, with testing occurring throughout the product development process and in collaboration with the business.

When asked what outcomes could be avoided by using agile, 70 percent of IT professionals felt it helped avoid wasted money from ineffective IT projects, 66 percent felt it helped avoid large IT project failures and 58 percent said it helped prevent programs that do not meet business needs.

Again, state governments do not have the resources to afford wasted investments.

WHY AGILE?

To respond to user demands and deliver high-value functionality, organizations today need a new technology infrastructure with supporting business processes to be able to anticipate and adapt to the rapid changes of the digital era.

ACHIEVE MORE FOR LESS

States are turning to agile as an alternative to waterfall approaches that bear a significantly higher risk for project failures and increased time and costs. Through ongoing engagement with the product owner and delivery of functionality (i.e., minimum viable products) in sprints, agile has enabled states to effectively address the most significant risks inherent in waterfall—business changes during the project life cycle, changes in scope and/or reduced returns on investment.

Half of those surveyed in this study experienced less risk and greater efficiency with agile.

Agile’s strong business engagement is a major element of its appeal and an indicator of a greater likelihood of project success.

State governments know they need to change to satisfy citizen expectations by being more active and relevant participants of the digital age, and they are eager to learn.

But implementing agile in government requires a culture change across the organization, not just in IT. Agency leadership, budgeting and procurement, CIOs and chief technology officers (CTOs) must embrace this methodology together to lead to a broader government transformation that will deliver higher value to customers and citizens alike. In other words, government itself must become more agile.

The focus on users and their needs means that the solution is more than just a product; it also satisfies the overall mission of government—to better serve citizens. As this research points out, agile can work, does work and is an exciting opportunity to achieve better results for state government, just like it does in the private sector.



THE ADVANTAGES OF AGILE

EARLY FEEDBACK

Demonstrations are done after each iteration, and business and stakeholders have the opportunity to give early feedback that can adjust or establish new requirements.

74% of respondents improved customer engagement and business ownership

CHANGE-ENABLED

Changes to requirements and priorities are easily done.

64% of respondents saw products that had greater alignment with business needs

REDUCED RISK

Small iterations with regular deployments and tests reduce technical risks; early feedback reduces functional risks; and transparency reduces organizational risks.

52% of respondents achieved greater efficiency

SCALABILITY

Small, self-organized and coordinating teams minimize overhead and limit the need for micromanagement.



[Agile] will save the state tens of millions of dollars.

– State CIO

FASTER TIME TO MARKET

Small, highly skilled teams can work at a maximum productivity level, and each iteration delivers a new shippable product.

43% of respondents experienced greater speed

QUALITY

There is a high degree of automation, and development focuses on quality and a working product.

68% of respondents improved the quality of their final product

TRANSPARENCY

The current status of sprints and backlogs is transparent, and KPIs can be measured. Problems are not hidden and can be addressed early.

65% of respondents achieved greater transparency

AN INSIDER'S PERSPECTIVE

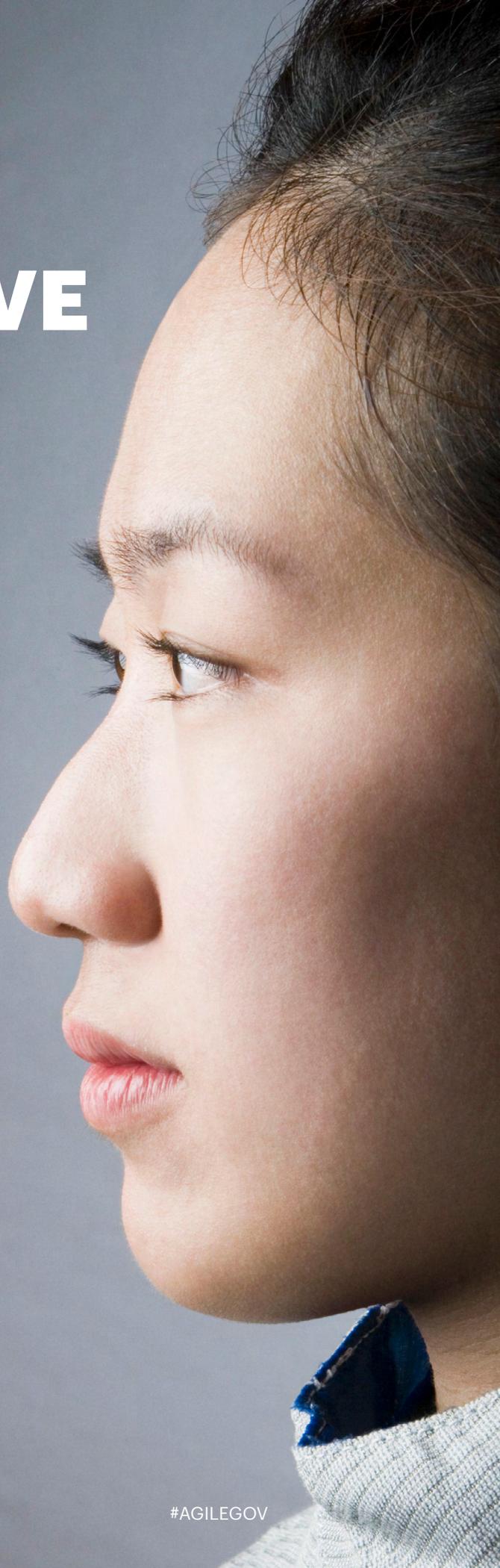
For state governments, agile is a relatively new approach that is not widely applied to public IT projects.

About 71 percent of CIOs have used agile for less than five years, and 19 percent of organizations have never used it at all.

But the enthusiasm is overwhelming and adoption is growing. One chief procurement officer (CPO) put it best, saying “agile can be an opportunity for these big investments to fail quickly with less expense.”

It requires a new perspective, a new level of ownership by the business, a mindset toward exploration and experimentation, new knowledge, training and coaching, and the courage to achieve higher value at reduced costs.

Agile requires a great deal of user understanding, commitment and involvement. It can't succeed if it's done piecemeal. So why not take a lesson from the playbooks of those already implementing agile and find out what works, what doesn't work and what are the essential ingredients to success. Their insights may surprise you, but they can also prepare you for a successful and enlightening journey toward greater organizational value and better citizen outcomes.



CIO, STATE OF NEBRASKA AGILE TALENT & CULTURAL TRANSFORMATION

The State of Nebraska saw an increased focus on shared services and the need to optimize the efficiency and effectiveness of its technology and innovation efforts. But it needed more centralized development resources and more varied talent. It knew it could not compete with private sector companies recruiting within the University of Nebraska system, so it turned its focus on recruiting students from local community colleges, offering them an opportunity to stay in Lincoln and use their talents to help the state continue to build and support more innovative systems.

This strategy contributed to the implementation of agile in the Office of the CIO. Because local schools focus more on professional development and skills-based learning, students coming out of their programs—even with an associate's degree—have learned both agile methodology and technical skills. Many of the students started with the state as interns and were later hired full-time.

Once this new talent entered the office, they began asking the CIO for permission to “tear down office partitions” and “get a couple of large monitors” to help change the way they work. Here, agile was not a top-down directive but, rather, a groundswell. The CIO supported their efforts, making sure they got what they needed for agile.

The team is now running stand-ups, scrums and displaying backlog and burndown on the monitors that the whole floor can see. New talent from the local schools can easily jump right into the operations. And with enthusiasm for agile spreading, team members with longer tenure became intrigued, with some even leaving their cubicles permanently to join in the agile methodology. The state also uses these students as ambassadors to their alma maters, describing to current students how the state is working and getting them excited about the opportunities in government. More young talent is now staying in Lincoln to work on state projects.



BEYOND THE METHOD: **REFLECTING ON EXPERIENCES**

Agile is a culturally distinctive approach that requires a cultural transformation. States cannot experience the full benefits if they don't go all in. Half the battle is putting in place the right building blocks to pave the way for success. Based on the experiences of those interviewed, there are seven key steps to implementing agile projects in state governments. Do you have what it takes?

1 SECURE EXECUTIVE SPONSORSHIP

Implementing agile requires a strong advocate that is determined to solve the state's challenges in the most efficient, cost-effective and value-driven manner possible. "It's state government. It's been a strong command-and-control culture for decades," said one IT and Procurement Manager. "To move from that to self-forming teams – it doesn't happen without changing [the culture]."

For some states, the shift to agile has been led from the top by the CIO or CTO. One CIO came to government from the private sector. After taking the position, he decided to move to an agile methodology and was the driver of the transformation. In other states, the move to agile was more of a grassroots effort where a few project teams tested and expanded the methodology. Still other states were driven more by agency needs rather than IT involvement. "Human Services is getting pushed into agile because of an overall required culture change in the agency," said one state IT executive director.

Success for each of these states depended on one person who acted as the agile champion and was committed to doing agile the right way from beginning to end, ensuring that users are trained and empowered to follow the rules and capturing the value of the process. Not only did the knowledge of agile start to spread, but the enthusiasm around a new skill and way of thinking also expanded. And this advocate can come from anywhere in the organization:

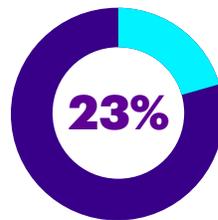
"We want to set the standard for the rest of the state to show that you CAN do agile in state government,"

said a client services manager.

The important thing is to recognize that agile can serve as a standard for simplifying sponsorship and buy-in, and that, ultimately, success is driven by a clear voice and an active champion willing to take risks.



of respondents said a CIO/CTO or agency CIO leads the charge and is responsible for agile.



of those surveyed said the application development lead was primarily responsible for agile.

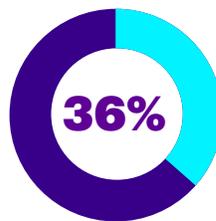
2 SPARK A CULTURAL TRANSITION

Critical to the success of any agile approach is the extent to which an organization changes its business culture. Of those surveyed, 57 percent said the willingness to embrace change was the single greatest requirement for a successful agile project. At the same time, many cited culture change as one of the biggest constraints to adopting this methodology. The agile path demands widespread acceptance and commitment. This cultural transformation includes rethinking enterprise functionalities, integrating traditionally siloed team structures, shifting mindsets from command and control to servant leadership, ensuring teams follow agile rules and shifting from status reporting to collaboration. Key to successful agile implementation and adoption is a mindset focused on functioning software, real technology capabilities that support an accompanying examination of the underlying business intent and the business processes that should deliver that intent.

Agile also eliminates the old paradigm of “us” and “them” which has historically drawn sharp lines between the technology and the business domains. Rather than operate as two separate teams, agile helps to blur the lines and create one unified team working towards a common product.

One respondent said,
Agile is now a proven approach, and should be adopted to reduce risk. It is a cultural change ... Our biggest challenges are changing the business culture to get used to frequent releases and developing DevOps capabilities.

A State Director of Office of Systems Integration that has actively embraced agile reiterated this point in describing their experience, “It’s a major cultural shift that you have to make sure that you get your whole ecosystem involved in and bought into, because everybody from your executive directors to your control agencies to your users that are going to design sessions, has to change their way of thinking from what is involved in waterfall projects.”



36%
of respondents said the greatest cultural change necessary to successfully implement agile was the extent of business involvement.

3

MAINTAIN BUSINESS ENGAGEMENT

One of the biggest shifts that occurs with agile is the level of business engagement. Rather than work in silos, the business works hand-in-hand with IT to shape the end product throughout the entire project lifecycle. This is a significant cultural change and should be considered when determining if a project is a good fit for an agile approach. The customer not only has to be on board with the approach, but must also be involved in the entire process. Compared to traditional IT, agile requires a different, yet highly valuable, level of business engagement that improves outcomes, funding and customer satisfaction.

This proved true for one CIO, who brought in agile processes and noted how excited the state became, saying,

What was extraordinary to me was that the engagement level was so much higher that ultimately they shelled out \$1.5 million, which was tenfold what they were willing to do previously.

This type of collaboration between IT and the business unit is a large cultural shift, and currently only 27 percent of respondents indicated that their IT

functions collaborated to a great extent or to some extent with the organizations benefiting from an agile project. Yet, this collaboration is essential to success. The proof is in the results. For agile to work, team members representing the product owners must be familiar with the business needs and have the authority to make decisions and prioritize requirements. If a business team member cannot fulfill this role on the project team, then the project team must have the flexibility to replace the person. This is a critical governance role within and across the agile project portfolio.

For the business, the initial time required by the product owner's representative(s) can be intimidating. However, in the long run, it can prevent mistakes by allowing the team to go back and rework the end product to fit the business needs. This includes the necessary ability of the team, along with the business representative, to explore, experiment and deliver new functionality discovered during the agile process. Once sold on the benefits of the agile project time commitment, the project owner must continually employ tools and techniques to maintain engagement and promote project success with clear lines of communications between the project team, the business and other allied functions, such as enterprise architecture, data management, legal, procurement, budget and the project management office.

Business engagement is ongoing and occurs through several clear pathways:



DAILY SCRUMS

The daily scrum is a brief (15-minute) meeting held each day, where the scrum team comes together and inspects the progress toward a sprint goal, synchronizes efforts and removes any project impediments.



The number one source of engagement is daily scrums [and] project tasks which emphasize that everyone is part of the team and involved and seeing the benefits in real time.

– State CIO



LISTENING

Communication and coaching are key. By listening to and understanding the needs of the business and incorporating those elements into the solution, the team will see a more successful product.



I sit in on a lot of IT projects. A common thread in all projects that don't do so well is that the IT people don't listen to what the business owners [and] customers are looking for. That's what [our agile leader's] shop was so good at. They listened.

– Labor Management Bureau Chief



CHANGING OUT PRODUCT OWNERS

To be successful the team members assigned to the project by the product owners need to have the knowledge and authority to make decisions. And if that assigned representative isn't a good fit, the team needs to be able to enlist an alternative.



One time we worked with the agency to get a new product owner and that worked out very well. Another time we didn't, and that did not work out well... the product owner is so critical to the success, to keeping it moving.

– State CIO

Continual feedback is needed to be agile. And the necessary cultural change must take place within the business as well as the IT function. Collaboration is key. Some suggested that being too overt about “being agile” can make this change harder. So agile concepts were slowly introduced without a lot of fanfare. You don’t even have to use the term. You just need to do it. Once the business sees results, this transition becomes easier.

About 98 percent of respondents agree that customers like to see frequent updates to agile projects. Focusing on results and being careful with terminology can help maintain engagement. Successful outcomes will drive business engagement, but the lack of success can also deter it. A state commissioner described this phenomenon by stating, “success breeds success.”

So with 95 percent of respondents saying their customers are satisfied with the end product after applying agile, the future of this approach in state governments is promising.

But it requires a new way of thinking, or rather a cultural shift that embraces this change—one that depends on collaboration and communication between business and IT. There is an inherent motivator within the business domain and the IT domain to get it right. The risk is shared, so there is a strong incentive to not fail. There is also an inherent motivator to deliver a working solution that is indeed relevant. Therefore, there is an incentive to re-examine current business processes and do necessary business re-engineering when it is appropriate to do so. At a minimum, the business and IT are motivated to ask the question, “Are we doing the right thing? And are we automating the right process?”



4 ADOPT USER-CENTRIC DESIGN THINKING

Putting the people at the center is also vital to the success of an agile transition. This thinking should extend to shaping the end product with the end user, whether it be state government employees or citizens. A successful user-centric design requires engaging both product owners and end users in conceptualization and prototyping. Working through prototypes with end users and encouraging user involvement fosters effective system design. This is true even with citizens. It takes planning and effort to involve actual users, whether the application is internal or constituent-facing.

One deputy audit controller said,

The hardest part about implementing agile is [how to] get real time feedback and input from the users to understand where they want more functionality and where we should focus our time. We're always trying to get that feedback loop tighter.

And just because user-centered design is a priority with agile, it doesn't make it easy.

Only 24 percent of respondents used design thinking when they started a project in comparison to 78 percent who used business process mapping.

States are at the lower end of the maturity curve when it comes to user design. Even those who have been using agile for a while are not realizing the full benefits of design thinking.

"[W]hen I ask the question to government workers, 'Who are you working with when you are doing user-centric design?', they are almost always working with a proxy rather than the actual customers themselves," said an agency representative, who further stressed that it is neither acceptable, nor beneficial, to rely on an analog when the end user is accessible and available.

There are a few steps that states can take to understand the users' needs:

ASK THE USERS

Engaging users does not have to be a complicated task. When embarking on a project, the project team can interview the users about what works or what doesn't with the current product and what they would change. The simple step of asking a few questions can greatly improve the end results.

OBSERVE THE USER

The product team can embed themselves with the users and gain a detailed understanding of how they interact with the system. This could be anyone from a state worker processing payroll to a citizen applying for benefits online. This observation can reveal where the user gets stuck or where current processes fail.

When investing in a new project, it makes sense to try and get the best results possible. As requirements in agile evolve over time, user-centered design has an even higher potential for positively impacting a project's outcome. Involving the user in the beginning can help mitigate risk and create a stronger project in the end.

Essential to successful agile projects is preparing the business, its customers and those team members representing the business to think about the "future."

When they consider the underlying business capabilities that are either supplanted with automation or further enabled through automation, they must think "best path", "best practice", "most effective" and "citizen outcomes".

It is also important to remember that while many organizations will spend time on design thinking prior to actually sprinting, agile emphasizes the importance of continuous and iterative design reviews at the end of sprints to ensure maximum success. Specific scrum meetings can help foster continuous user-centric design reviews. Sprint reviews and system demonstrations to the product owner and their clients are a great way to get feedback on the latest and greatest solutions developed by the scrum team.

5 INVOLVE BUDGETING & PROCUREMENT

States have yet to clarify and standardize processes around budgeting for and procuring agile projects. Some states have tried out different approaches with varying degrees of success. But most states continue to test different contracting methods to find out what has worked for other states and what would work best for them. The alternative is limiting their agile approaches to internal project management development arrangements because transforming budgeting and procurement represents too much of a cultural and legal shift.

The manager at this state project management office continued to describe how agile procurement is a “balancing act” that needs “enough wiggle room to evolve the project.” Procuring agile projects requires a different framework than traditional IT, but current state practices are isolated and unclear.

Policy obstacles create uncertainties that complicate the ability to find and standardize the right approach. Contracting for a *minimum viable product* is a big shift, and yet, you are paying for the value delivered.

Public sector CIOs who worked in the private sector noted that agile procurement is also a significant challenge for the private sector. However, the rigid and often siloed nature of government makes procurement an even larger hurdle for government.

A manager at a state project management office said,

We have to educate, inform and persuade our state procurement. Agile procurement is an iterative process...[i]f you have to have every single requirement buckled down before you issue your RFP, that’s not really agile.

Almost 70 percent of CIOs identified procurement issues as a top organizational barrier to using agile.

Further compounding the challenge is the fact that IT is not collaborating with procurement functions.

While 41 percent of CIOs said they were not collaborating with procurement at all, another 40 percent said there was limited collaboration with procurement functions.

To procure agile projects, states tend to improvise with hybrid models, vendor partnering, persuasion and new ways to estimate scope. But there is a workaround quality to their approaches. Staying internal for agile projects can avoid procurement challenges altogether, but it raises questions about how those challenges affect staffing and procurement decisions.

It may be interesting to explore to what extent vendor procurement challenges drive decisions to either staff agile projects internally or avoid agile completely for large-scale projects where there is no choice but to use vendors.

Experts recommend evolving to modular procurement and pre-qualified vendor pools; considering multiple vendor awards and multi-vendor collaboration; and locking in a budget and schedule to let prioritized functionality become the scope.



PRE-QUALIFIED VENDOR POOLS

By creating a pre-qualified vendor pool, states can have a group of vendors who they know can work on an agile project.



The contracts or SOWs that we're doing allow us to, where, if we're failing, we can cut those ties and reassess and regroup. We're looking at agile vendor pools, where they're already pre-qualified. It's really about speeding up the process...

– PMO Director

MODULAR CONTRACTING

Modular contracting breaks up large procurements into several smaller projects, allowing projects to be implemented in interoperable increments.



We didn't need to adjust for the smaller projects but for Human Services, it's requiring a mindset/culture shift ... Agile requires much more engagement with the vendors and that is a big change.

– State IT Executive Director

MULTIPLE VENDOR AWARDS

Multiple vendors are awarded work and can collaborate on the project.



In procurement, we are moving to a California-inspired model, using multi[ple] vendor awards. All of the vendors are susceptible to the contract terms and it is awarded with no guarantee of business, but we do task orders on the contract. If vendor A cannot deliver, then we go to vendor B.

– State CIO

TRADITIONAL BID/ MODULARIZED WORK

Some states have issued traditional bids and broken the project work into smaller pieces.



With the incremental approach of change ... in mind, what might work is bidding for outcome more traditionally, just to simplify the process, but then breaking down the statement of work and how we work into more agile-like chunks.

– State Commissioner



Transparency drives effective agile project budgeting and budget management by limiting surprises and planning, estimating and prioritizing costs as precisely as possible. This requires sprint-based estimates and true-ups in addition to clear expectations and communication. Moreover, innovations like “Sprint Zeros” and “failure credits” can help states overcome agile budgeting challenges by attempting to estimate full costs and scope upfront, enabling vendors, as well as internal delivery teams, to propose and commit to firmer delivery schedules and costs for agile projects.

Agile allows states to minimize budget overruns, particularly on unsuccessful efforts, by shutting down projects within weeks—a vast improvement from waterfall methods, which can take months or years to realize that a project will not deliver.

6 ENGAGE AUTHORIZING AGENCIES

To win over authorizing agencies, project delivery advocates should emphasize the transparency around agile time and cost spending. Of those surveyed, 65 percent said they experienced greater transparency with agile projects. If properly structured, an agile project can incentivize vendors to finish early for less cost—a key selling point to authorizing agencies. They must also emphasize how agile provides greater control over spending.

Some states argue for starting small and implementing incremental change as a way to limit failure and spread success. It is important to keep stakeholders informed to proactively overcome their discomfort and gain their support. This includes improving the mechanics and culture of evaluation (e.g., metrics, reports and plans) under agile. Once established, this support can potentially secure future funding.

One commissioner said,



Take them one step, and when they see that's better, take them another step. That's how agile works anyway.

Agile led 38 percent of respondents to experience greater adaptability to legislative and policy change.



Of those surveyed, 65 percent said they experienced greater transparency with agile projects.

7 CONDUCT TRAINING ACROSS THE ENTERPRISE

State leaders cited lack of training and knowledge in how to use agile as the top barrier to organizations applying this approach, and 65 percent indicated that more than half of their staff had no skills in agile. Consequently, states see agile training for both IT and business talent as critical to success and rely on internal, external and online resources to deliver it.

Training fosters adherence to agile, adoption of the more mature aspects of the approach and the onboarding of new developers, project managers and agency stakeholders. Some states found that training the organization's leadership on agile helped them achieve success. "The day I knew we were over the hump [was when] the Commissioner of Division Resources was complaining because he didn't have his burndown report," commented one CIO. Once trained, leadership understands the process so it can adjust expectations to fit the new strategy. If leadership doesn't accommodate agile, the project will not work.

States employ a variety of techniques to help develop broader agile competence across the enterprise, including coaching and internal knowledge transfer.

In fact, 33 percent of organizations are managing IT talent by training current employees on agile methodologies.

Reliance on peer learning and an informal "do-it-yourself" approach is not uncommon, but it does not always produce the best results.

Coaching is one way to build the skills of the current workforce, and many state leaders identified it as an important success factor for early agile projects. Coaching not only helps employees build their skills, but it also helps them adhere to and experience the full benefits of agile. Some states have even used a 'train the trainer' method, where select staff members extensively train on agile methodologies and then turn around and train other team members. And at least one state that is seeing great success with agile has committed to always employing coaches on agile projects. This key ingredient for success remains with the state no matter how much experience it has with agile.

States noted that hiring people with agile skills is a challenge. As with other IT jobs, states are seeing top talent opting to work in other industries. However, one state is using community colleges as a pipeline for finding agile IT talent, which may offer a practical innovation for developing and attracting the skills of the future. The enthusiasm that these new state government workers have for agile have helped spread its use to other departments. Workers who have been there for years are now asking about agile.



It's finding those ones who are energetically going to be your apostles for agile out there. They live and breathe this stuff,

said a CIO, who also noted that 70 percent of their interns eventually became full-time employees.

Even though 47 percent of respondents said their IT function struggles to recruit and hire talent with agile skills, it can serve as a valuable recruitment tool to entice team members to become evangelists for agile methodology as well as retain talent. This is especially true with millennials, because it shows not only how governments deliver services for the greater good, but also that it can do it through new and cutting-edge technology. While there is a risk of losing recently trained agile developers to industry, a strong partnership with local community colleges can help develop an ongoing pipeline of new talent.

HOW DO YOU START WHEN YOU DON'T KNOW **WHERE TO START?**

The transition to agile may seem daunting, but states can learn from each other. Knowing what works, what doesn't and who to consult is vital to a successful project. These best practices were drawn from conversations with state government leaders across the country, who shared their thoughts on key processes, pitfalls and promises of implementing agile in state government. Based on their best practices and lessons learned, here's how you can begin implementing agile:

1

PICK THE PILOT

Focus first on a project with well-defined business outcomes and choose a clear champion who has a significant stake in successful results. Engage end users and be sure to understand expectations, benefits and costs so that you can map out the best course. Many respondents suggested that a mobile app or website would be an easy place to start to become familiar with agile delivery.

2

EXPLORE AGILE WITH POTENTIAL ADVOCATES

If you are in IT, collaborate first with a forward-thinking product owner and an executive agency sponsor to jointly describe the opportunities and risks of agile and then decide how and when to proceed together. If you are on the business side, don't just tell IT what to do; work together as a team.

3

INJECT EXPERIENCE

Make the case for agile by engaging leaders from other states, federal agency stakeholders and trusted vendors to share stories about how they have conducted agile in state government and learn how they achieved outcomes. Draw on real success stories to understand why agile might be the right approach.

4

MAKE THE CASE FOR PRODUCT OWNERSHIP

Show the business exactly what benefits the agency will derive from dedicating a knowledgeable, experienced product owner representative to the agile development process and make the demands on the product owner abundantly clear. As the project progresses, describe course corrections and greater control.

5

FOSTER THE TEAM'S KNOWLEDGE AND ENTHUSIASM

Get the developer, project manager and product owner team members up to speed on agile and its advantages through readings and online courses. Put in place an effective communication and marketing strategy for the effort, keeping in mind that an effective marketing strategy continues its efforts even after agile has been adopted. And after you've piqued their interest and excitement, be sure to follow up with continuous participatory training. Also, use training, particularly for leadership, to create an understanding that agile is an incremental process, not a perfect delivery.

6

ESTABLISH ONGOING COACHING

As users interact with the agile system, provide coaching throughout the development process to help shape continuous changes and ensure that teams hone their agile capabilities. Dedicating resources to talent development and support will help expand agile throughout state government.

7

PLAN FOR END USER INTERACTION

Ensure that teams begin agile projects with access to end users and methods for collecting feedback during the course of the project. Plan for course corrections as new learning is gained from this interaction. New requirements and better processes or process steps may surface. It is possible that during an examination of a business process, various “hidden factories” are discovered where the business domain experts have been overriding systems and business process steps to achieve real outcomes. Now is the time to incorporate those known requirements and capabilities into the new solution.

8

COMMUNICATE AGILE ADVANTAGES TO STAKEHOLDERS

Document and present how agile will offer approving agencies and legislators a clearer view into budgets and ongoing performance. Continue to reinforce this over the course of the project by soliciting more frequent feedback and providing more regular updates. Emphasize that they will no longer be waiting on large releases that require significant levels of effort to test. Too often such instances result in inadequate testing or the proverbial “surprise” that the solution does not deliver relevant functionality.

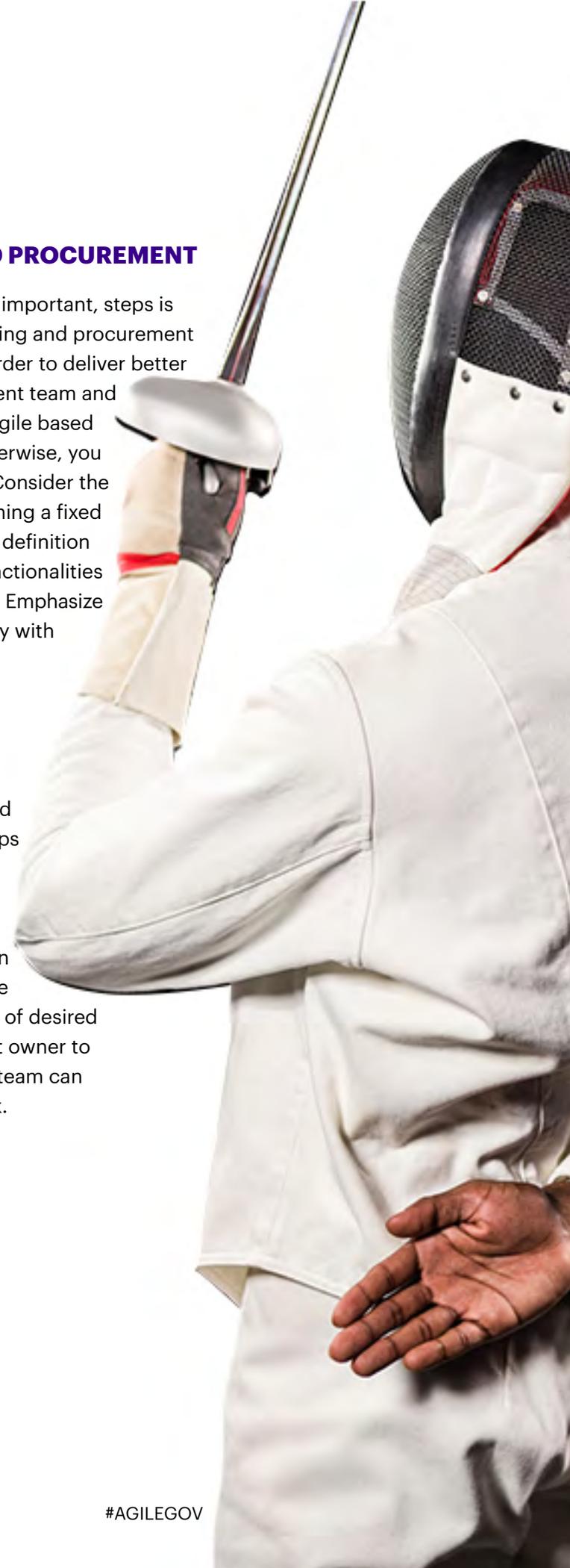
CALIFORNIA OFFICE OF SYSTEMS INTEGRATION (OSI) AGILE WAR ROOM

When California's Office of Systems Integration (OSI) and Department of Social Services (DSS) began working with the state's Government Operations Agency, Health and Human Services Agency, Department of Technology and county partners to re-procure its aging child-welfare system, officials realized that following a traditional process would mean the project would be 10 years out-of-date by the time it was completed. Project leaders realized they needed to accelerate delivery and procurement to ensure it was delivering relevant functionality that kept pace with the dynamic nature of the child welfare policy and met the needs of the end user – the case workers. They needed a strategy that would be a steady state, continual delivery process. These needs led to the implementation of an agile approach to the initial delivery and ongoing staged delivery as business requirements changed or new requirements arrived.

They started by moving to modular procurements, breaking down the overall delivery into a set of iterative projects, which directly support the ongoing agile software development and is making each procurement less complex and less

time intensive. The state built a pool of pre-qualified agile software development vendors who could both bid on modular procurements and deliver per the agile methodology. Procurements have been and continue to be completed quicker and with fewer conflicts between the contracting entity and the vendor. So instead of taking two years, procurements for the first digital service contracts took just seven months, with subsequent procurements taking even less time. This iterative process resulted in early functionality far sooner than expected under a monolithic approach, and continued development of digital services focusing on the highest customer priorities. Under the previous monolithic approach the state expected to award a single vendor contract for the entire project later this year and would not have implemented any functionality for another two years.

Finally, incorporating user research and user-centric design is proving to increase the collaboration between state and county partners. By recognizing that change is a constant part of government service delivery and speeding up contracting, modular procurement is enabling agile delivery to focus on better meeting the needs of the clients and end users.



9

ADDRESS BUDGETING AND PROCUREMENT

One of the most difficult, yet more important, steps is to understand how current budgeting and procurement processes can work with agile in order to deliver better outcomes. Engage your procurement team and explore ways to begin working in agile based on innovations in other states. Otherwise, you risk the level of deliverable value. Consider the emerging best practice of establishing a fixed budget with a fixed timeline with a definition of success based on prioritized functionalities rather than a predetermined scope. Emphasize the strength of incremental delivery with regard to risk management.

10

PRIORITIZE THE USER AND YOUR FOCUS

Throughout the project, put the end user at the center. Take simple steps to understand how citizens and agency staff interact with the product and what things you need to improve. Write their story in plain English and use it as a guide. As the project progresses, build a catalog of desired features and work with the product owner to prioritize these features. The agile team can then use this list to drive their work.

BREAKING THROUGH **THE ADVICE**

These strategies and success factors represent the most insightful, first-hand knowledge of how agile can work in state government. Learning from those who have already made the trek can help ensure you experience a smooth process—just as long as you change your organization’s mindset to reflect agile principles. Results can only be realized with strong commitment, collaboration and continuous engagement. Understanding what can be achieved and what it takes to get there will only help determine the direction, speed and destination.

But for states to truly capitalize on advantages of agile, they must start the conversation within their own organization. Now is the time. Your citizens demand new services that reflect the realities of the digital age, and only through innovative change can you keep up. Agile is more than just a project delivery model. It is a path toward sustainable and continuous transformation.

NOW IS THE TIME



RESEARCH METHODOLOGY

Accenture and NASCIO surveyed 53 state government leaders from 34 states and one territory and interviewed more than 25 technology and functional agency executives from 18 states about their experiences, perspectives and success factors with agile implementation. The goal was to better understand the challenges, benefits and opportunities related to agile methodologies in government, in hopes of guiding others toward successful adoption. For more on the research findings, visit www.accenture.com/agilegov and www.nascio.org/agilegov.

KEY TERMS

AGILE

Agile is an umbrella term for iterative, incremental software development methodologies. These methodologies contrast with traditional 'waterfall' development, which is driven from the top down. Agile emphasizes small teams and business involvement. Example of methodologies include Scaled Agile Framework, Kanban, Scrum, Extreme Programming (XP) and Feature Driven Development.

SCRUM

Scrum is a specific framework under the agile umbrella. Scrum is made up of a series of short iterations. Iterations are called sprints and have a fixed timeframe. The methodologies designate several key roles: the product owner, scrum master and scrum team. Scrum teams have a daily scrum meeting or stand up meeting.

SPRINT OR ITERATION

A sprint is a fixed-length iteration when the agile team performs work. During a sprint, the team takes one user story or product backlog item and develops a potentially shippable product. Iterations typically begin with a planning meeting and end with a retrospective.

PRODUCT OWNER

The product owner is the real customer or end user, or a stand-in for the customer or end user. They are non-coding members of the team that have an understanding of what the end product needs to deliver. They work with the team to prioritize work. The product owner also develops user stories.

SCRUM MASTER

The scrum master is a role in the scrum methodology, responsible for facilitating the team's daily work and removing obstacles or impediments that the team faces in its work.

AGILE COACH

An agile coach is often used by teams that are new to agile, helping them adopt agile practices and mentoring them to ensure they adopt a truly agile mindset. This includes ownership, self-management and empowerment.

USER STORY

A user story is expressed from the user's point of view and expresses the functionality that the user would like to see. It is similar to a requirement but is written in plain English.

PRODUCT BACKLOG

A backlog is a list of desired features for the products. The backlog is used to prioritize features and help determine which features to implement first. The backlog may change and evolve as the project progresses. Teams pull work from the backlog to complete during iteration.

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About NASCIO

Founded in 1969, the National Association of State Chief Information Officers (NASCIO) represents state chief information officers and information technology (IT) executives and managers from the states, territories, and District of Columbia. NASCIO’s mission is to foster government excellence through quality business practices, information management, and technology policy. NASCIO provides state CIOs and state members with products and services designed to support the challenging role of the state CIO, stimulate the exchange of information, and promote the adoption of IT best practices and innovations. From national conferences to peer networking, research, publications, briefings, and government affairs, NASCIO is the premier network and resource for state CIOs. For more information, visit www.nascio.org.

About Accenture Research

Accenture Research shapes trends and creates data-driven insights about the most pressing issues global organizations face. Combining the power of innovative research techniques with a deep understanding of our clients’ industries, our team of 250 researchers and analysts spans 23 countries and publishes hundreds of reports, articles and points of view every year. Our thought-provoking research—supported by proprietary data and partnerships with leading organizations such as MIT and Singularity—guides our innovations and allows us to transform theories and fresh ideas into real-world solutions for our clients.

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