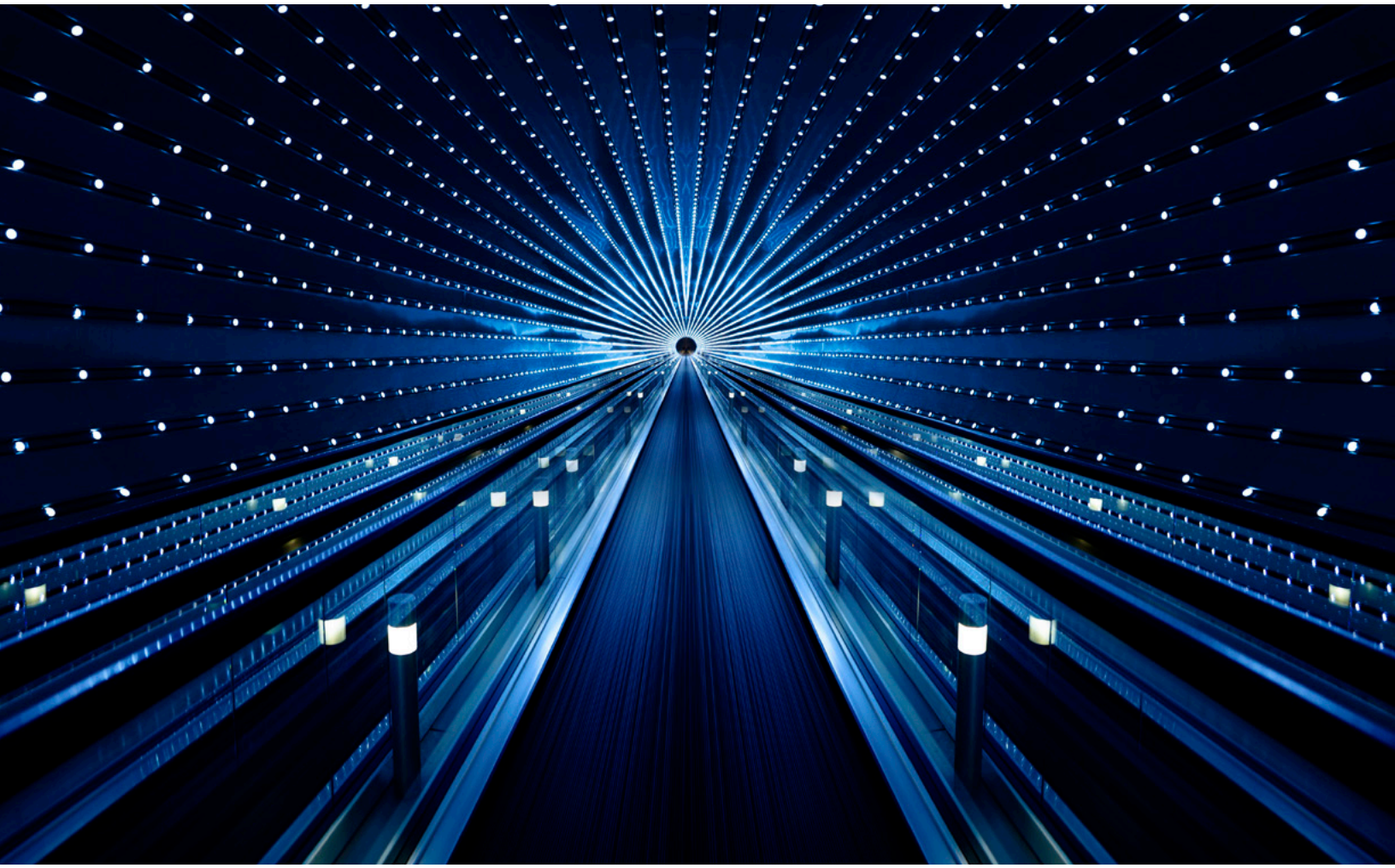
McKinsey&Company

Digital procurement: For lasting value, go broad and deep

To get the most from procurement digitization, leaders must raise their ambitions along with their skills.

Alexander Streif, Amine Abidi, Fabio Russo, and Marc Sommerer



NOVEMBER 2018 • OPERATIONS

Procurement digitization seems to be on every CPO's agenda nowadays. But too many CPOs tell us of frustration at digitization projects that take too long, cost too much, and produce results that are too slow and meager.

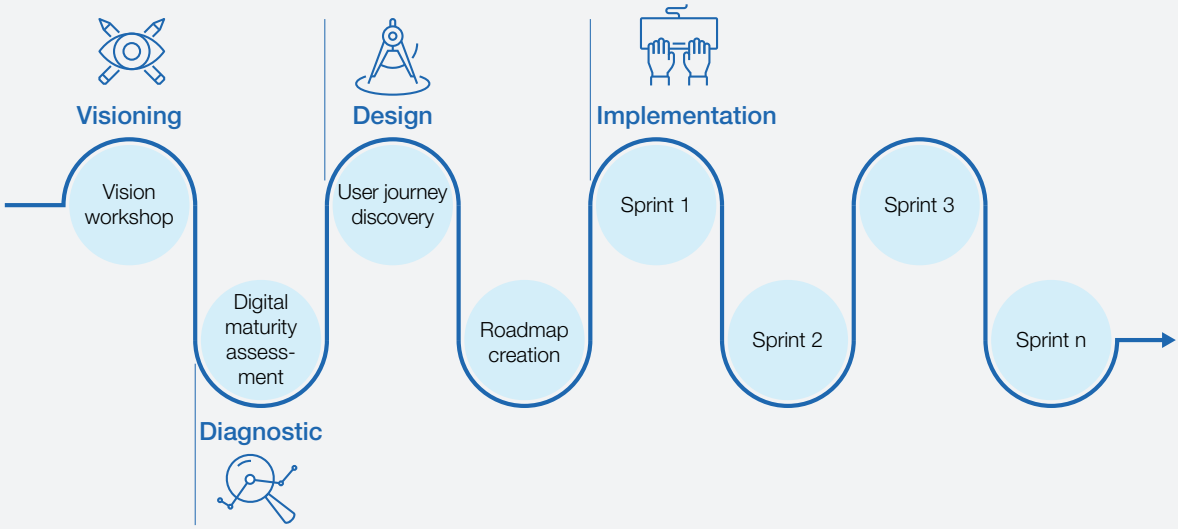
Some organizations discover that their IT capabilities aren't mature enough to implement certain digital solutions. Others finish implementing new tools only to find that users simply fail to adopt them, or that scaling up across the whole enterprise takes too much time and effort. But when prompted to examine why digitization has fallen short, many CPOs point to three central factors.

First, amid the initial rush to pilot proposed solutions, no one may ever have completely defined what digitization's scope should be. Second, digitization may have been driven more by what technology could do than by the real value it could create. Third, procurement may have focused mainly on solving its internal challenges, rather than on what the company as a whole needs.

In our experience, these three problems share the same root cause: starting too small, usually by looking for the right off-the-shelf solutions for single pain points. The truth is that we have found only one way to realize the full potential of digitized procurement: through a *user-oriented, end-to-end transformation of the entire source-to-pay (S2P) process*, so that the users involved in procurement can operate in a fully digital environment. That goal translates into a single focus for procurement digitization: the user experience.

Redirecting the digital transformation toward users has significant implications for how changes are designed, implemented, and renewed over time. Most important, it requires procurement leaders, business owners, and IT-delivery teams to adopt a much more agile methodology, typically via a modular approach (Exhibit 1).

Exhibit 1 A modular, user-focused approach to digital procurement transformation ensures a quick path to impact.



This disciplined model requires commitment but is far more likely to yield value over both the short and long term. A major basic-materials company, for example, started seeing results in just three months as it began rolling out early tests for its revamped procurement processes. Cycle times fell by up to 80 percent, while for the first time both suppliers and internal requesters could see exactly what was happening at any given moment with their purchase orders and invoices.

What could tomorrow's procurement achieve?

Digitization can be hobbled even before it begins by ambitions that are set too low. Admittedly, rapidly evolving technology means that what is truly possible is a moving target. But without a clear and inspiring vision, a transformation can get bogged down in small improvements that seem easy to adopt, but whose impact fades quickly.

Organizations that start procurement digitization with a **visioning workshop** can avoid this problem. At the basic-materials company, executives initially thought that a roughly 20 percent decrease in cycle times might be too ambitious. But by bringing procurement leaders, heads of related functions (such as finance or product development), and technologists together, the visioning workshop helped the leaders see that breakthrough technologies, such as robotic process automation (RPA) or natural language processing (NLP), were practical and economical to implement now—not in five years. That led the company to raise its digitization target dramatically.

What will our technology support?

A complete, future-proof (or at least future-resistant) S2P solution typically builds on the company's existing enterprise-resource-planning platform, along with a cloud-based application that serves as the backbone for the S2P process. Together, these digital tools support three broad groups of applications: category-specific (such as for labor or travel), functionality-specific (for electronic invoicing, contracts management, vendor management, and the like), and multipurpose, including solutions for RPA, smart workflows, and NLP.

Building this structure involves many tradeoffs. Consequently, once the organization has its digital vision and knows which journeys to prioritize, the next task is to look at IT resources, focusing on the organization's capacity for automation and its flexibility for integrating solutions at individual process points.

The initial goal of an **automation assessment** is to enable quick wins by automating current processes. The ultimate objective, however, is to achieve fundamental process improvements across all user journeys. To make progress toward both goals at once, the assessment evaluates and quantifies the company's existing automation potential on the level of activities and tasks, finding opportunities to incorporate advances such as RPA or smart workflows in the short term while building toward larger, longer-term changes to overall systems and solutions.

The basic-materials company went into its automation assessment assuming that very little of its existing IT would be useful. It instead found that 40 percent of its end-to-end S2P process would be automatable with technologies that are already deployable today.

How effectively the company can implement these types of digital solutions will depend on its **architecture assessment**, which comprises three major dimensions: integration architecture, data architecture and analytics, and infrastructure. The focus here is on determining which improvements are possible with the existing architecture, and where additional investment may be needed for achieving the transformation goals. That enables a company to prioritize the user journeys that can be digitized today,

and make informed choices about which mid- to long-term architecture investments are required to unleash the full potential identified in the user workshops.

Where could tomorrow's procurement have the greatest impact?

Digitizing procurement won't do a company much good if its people don't think it helps them get their work done. That means mapping out the details of how people involved in the procurement process work, tracing each step in the journeys that these procurement "users" follow in order to get their tasks done. That's potentially a lot of work. Moreover, "user" should be defined broadly: Some of the biggest benefits from a digital procurement transformation may lie outside the procurement organization, such as from suppliers that provide better terms once they are paid more promptly and reliably.

Prioritization is therefore essential. To identify the user journeys that are the most important to digitize, a company can start by understanding which roles stand at the center of the procurement ecosystem and which are more peripheral—i.e., who interacts with the most or fewest other people along the S2P process (Exhibit 2). This can vary significantly. A mining company found that the people most involved in its end-to-end S2P process were actually requesters and suppliers rather than the category managers it expected to see.

Once the right types of users have been prioritized, **user workshops** bring designers, technology experts, and representative users together to lay out the exact journeys in detail and find where their pain points are. This design-thinking approach enables the company to sketch out digital alternatives that address real problems (Exhibit 3). If done well, this mapping of problems and solutions should create excitement across user groups, enabling everyone to envision procurement's digitized future and its impact on their daily work.

How do we plan the transformation?

One of the greatest threats to any transformation is delay. In digital, where the technology landscape is constantly changing, the threat is far greater because lost time leaves a company farther and farther behind its competitors.

The solution? Look to the technology sector. Just as successful software companies plan continual product-update releases, procurement organizations must learn to plan continual "digital-function releases." Instead of trying to coordinate all of the anticipated changes into a single, integrated project—where errors or miscommunication can mean months of rework—companies can learn to make constant, small improvements in quick "sprints" of activity.

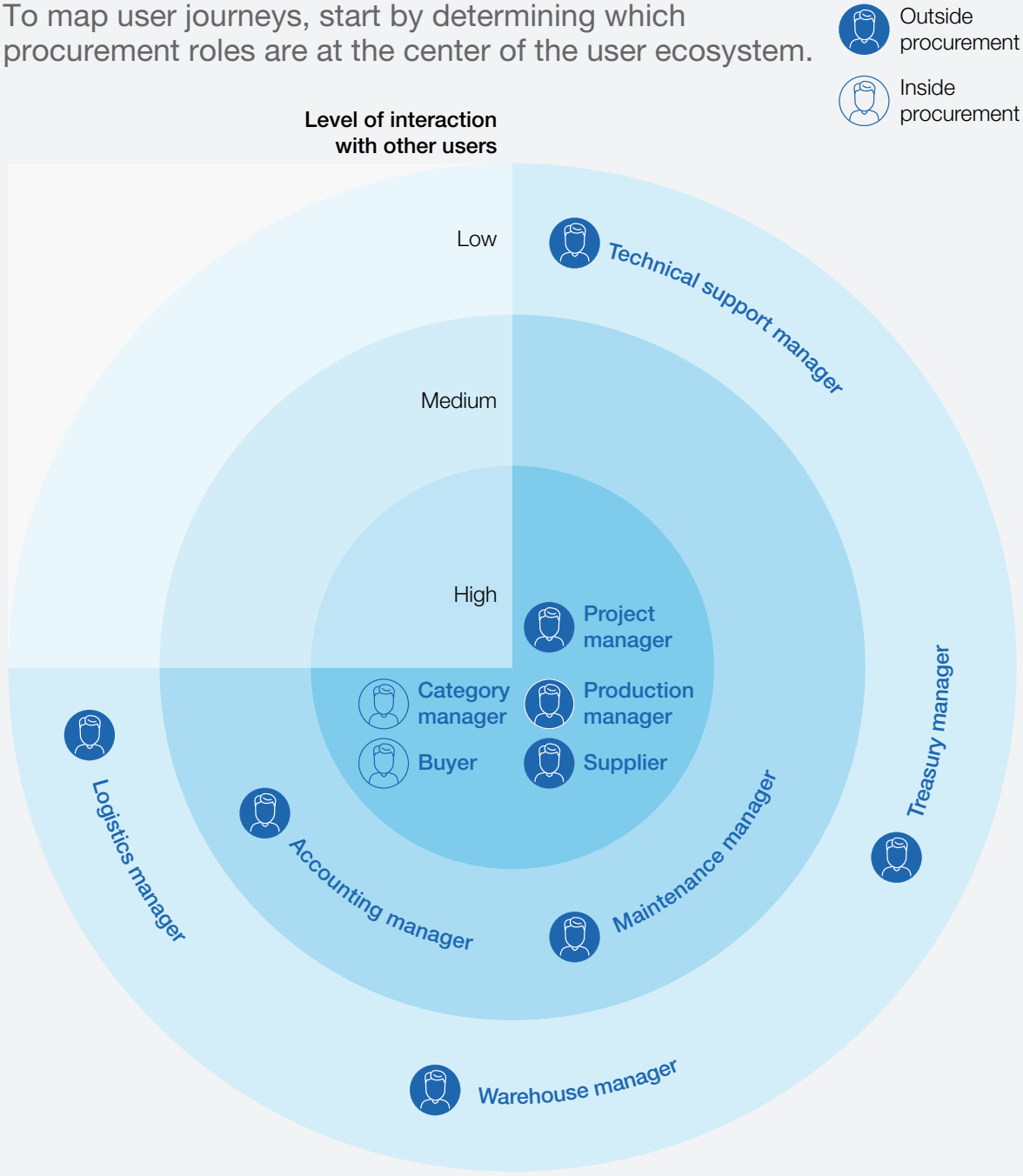
This is a major change for organizations that historically have wanted to perfect a new process before unveiling it. And because procurement processes are so closely interconnected, transformation leaders must think carefully about which processes to digitize and when, as well as what attendant changes in the IT architecture must be made and when. In creating a road map of initiatives to implement, the sequencing must be orchestrated so that both the user experience and the impact can be maximized for each major release.

Accordingly, digital road maps may look quite different from road maps created for other types of procurement projects, with much greater focus on managing interdependencies and addressing cultural questions.

Identifying interdependencies and defining priorities for digital initiatives

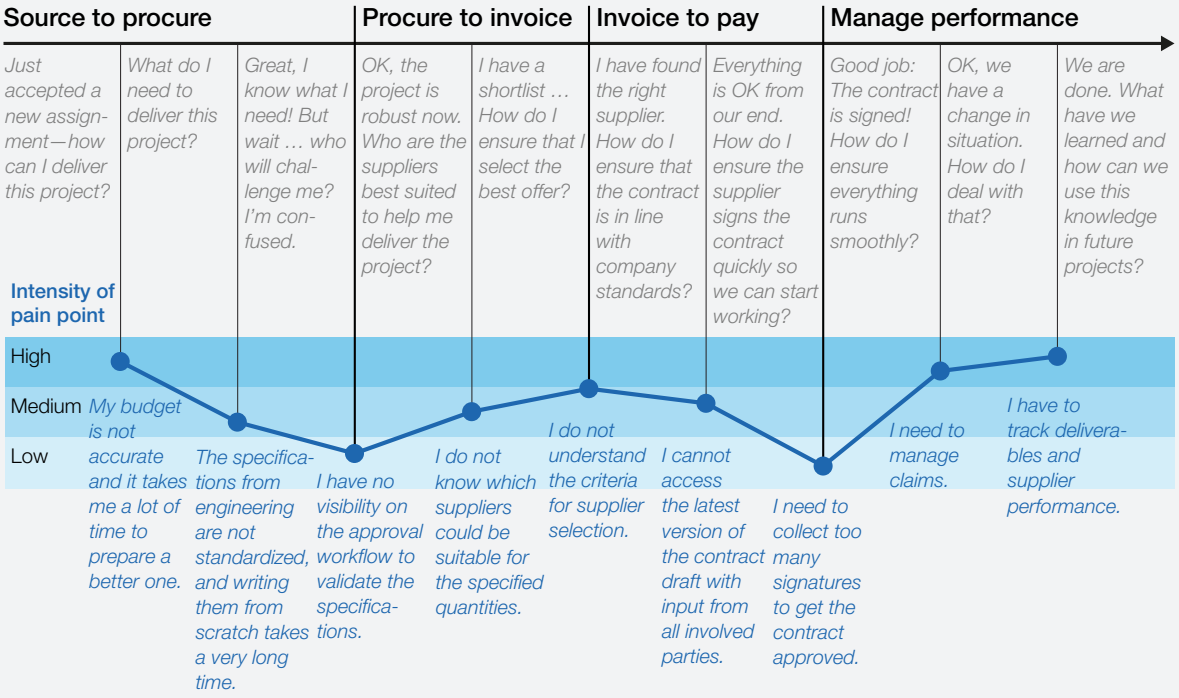
The importance of interdependencies in a digital context is hard to overstate, as illustrated by the mining company. One of the top goals of its digital procurement transformation was to reduce S2P

Exhibit 2 To map user journeys, start by determining which procurement roles are at the center of the user ecosystem.



McKinsey&Company

Exhibit 3 The current buyer journey is often frustrating.



cycle times. Executives assumed that the most important problem they needed to address was unusually high turnaround times at specific process steps. But an examination of the interdependencies revealed that the major problem was actually the number of approvals that purchases required, which often were contingent on additional approvals. Simply digitizing the steps with long turnaround times would have done nothing to get at the problem's root cause.

This type of finding informs the design and prioritization of initiatives throughout the road map. Typically, initiatives are prioritized using two major criteria: impact on the organization's objectives for digitization (such as spend reduction, cycle-time reduction, or user satisfaction) and ease of implementation. In a situation such as the mining company's, the road map might prioritize an initiative for implementing a basic collaborative-messaging tool so that multiple approvers could quickly consult one another in deciding on a purchase. Later initiatives might integrate the messaging system into a broader communications platform with other purposes, or call for new architecture that would obviate the need for it.

Shift mind-sets

There's little question that when people can see that digital procurement is eliminating pain points, they're much more likely to support it. But real enthusiasm for digitization is even more valuable, and takes more effort. The mining company's road map therefore attended not only to digitization's technical architecture and data

management, but also to creating a culture that came to embrace digitization.

The road map provided for new communications that explained the reasons for digitization and how it would help improve people's jobs. New training programs were also rolled out for developing people's digital capabilities. As these measures took hold, interest began building from other parts of the organization, turning procurement into a springboard for a much broader digitization plan.

How do we make it happen—quickly, and at scale?

Digital procurement transformation is like a marathon in which many companies drop out of the race early on, failing to get beyond an initial set of pilots. And like marathon runners training for a race, companies need to build two kinds of muscle fibers: the "slow-twitch" fibers that enable endurance over a long stretch and the "fast-twitch" ones that let the runners put on bursts of speed when they need them. For digital transformation, companies develop their slow-twitch fibers by building the right digital team to sustain the transformation over the long run, and their fast-twitch fibers by learning to produce new releases quickly in rapid sprints.

The slow-twitch muscle fibers: Building the digital team

The principal means for sustaining and expanding a digital transformation—finishing the marathon, so to speak—is a team of people who focus on it full time, with a multidisciplinary set of talents working together closely to implement and adapt the road map. Together they become a digital factory.

Several new profiles are critical in the digital factory, raising the question of how best to source them. Relying mainly on outside hires may prove expensive and difficult to sustain, especially over time as digital becomes more central to the organization. Role shifts and reskilling can provide crucial capacity additions. Longtime business owners and project managers may take on new roles as product owners and scrum masters, while implementation engineers learn to be agile developers, and IT engineers move to DevOps and automation (Exhibit 4).

Exhibit 4 Several profiles help in delivering a minimum viable product (MVP).

Product owner

Product visionary, customer ambassador, and backlog keeper

Syndicates user needs, leads design meetings, and drives development priorities

Scrum master

Applies agile principles and tools to facilitate and manage design and development sprints, as well as team capacity

UX / UI designer

Designs high-quality user experiences based on user requirements and inputs

Builds prototypes to validate user requirements and support iteratation of user-interface designs

Technical architect

Leads identification and evaluation of alternative technical solutions for implementation

Owns risk mitigation to ensure delivery, fulfillment of non-functional requirements, and code quality

Developer

Develops backend infrastructure, user interfaces (web and mobile apps), and interfaces with other applications and application program interfaces (APIs)

Organizations should also be thoughtful about how large the team should be. Better to err on the side of creating more capabilities than less: once the organization sees what digital can do, demand for digital support may quickly outstrip supply. If the team is too small, delays and rising costs could undo much of what the digital transformation was originally designed to achieve.

The "fast-twitch" fiber muscles: sprints

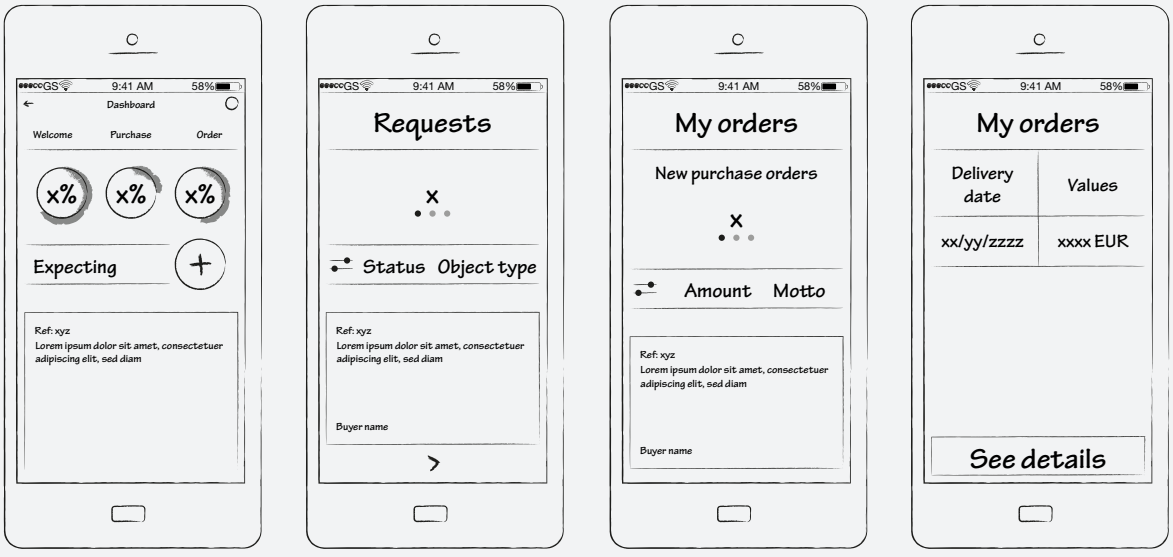
For a digital procurement transformation, a company must develop the ability to sprint: to work closely with users in rapid iteration cycles to ensure that what is produced is usable. In designing an application, for example, a sprint seeks only to develop a clickable sketch of a proof-of-concept prototype rather than a complete end product.

At first, the team seeks to develop just a minimum viable product (MVP), one that meets the most basic of the customer's needs. The MVP can be tested with users in further sprints to identify and flesh out the additional features to build in creating the most suitable user experiences.

Iterative sprints allow for a maximum of user involvement, transparency, and flexibility in developing solutions that address the real problems procurement users have with predigital systems. If, as in Exhibit 5, one of the problems is that a requester has no way to tell whether a request is being acted on, a simple screen can show the request's current status. Over further sprints, more and more detail can be added, perhaps allowing the requester to adjust quantities on the fly, or switch suppliers midstream.

As confidence builds, iteration can accelerate. We find that companies can begin achieving improvements after just three to four months, and can start building scale soon thereafter. Overall, the typical digital procurement transformation is a journey of 18–24 months,

Exhibit 5 Further iteration of the mininum viable product incorporates more features.



during which the initiatives (indeed, the entire road map) should be regularly reviewed and flexibly adapted as priorities and technologies change. That's a crucial part of the result: an organization that is far more capable of continuous improvement.

The impact from this approach translates into many kinds of long-term value. Cycle- and lead-time reductions help free up resources for value-added activities. Improved collaboration across functions and better decision-making through advanced analytics will create further savings. And taking a user perspective builds a skill the company can use throughout the enterprise. It all begins from seeing procurement as something worth a digital investment.

Amine Abidi is an associate partner in McKinsey's Berlin office, **Fabio Russo** is an engagement manager in the Milan office, and **Marc Sommerer** is an associate partner in the Munich office, where **Alexander Streif** is a practice expert.

The authors wish to thank Mauro Erriquez for his contributions to this paper.