

## Business Architecture – The Gateway to Transforming an Organization into an Agile Enterprise

*Whynde Kuehn and William Ulrich*

Organizations struggle with realizing business strategies, particularly when those strategies cross business unit, product, and external business domain boundaries. The question is why? Research shows that, more often than not, failure to realize business strategies is not because the strategies are ill-conceived. Instead, these failures often occur because the scope and impact of those strategies are vague or unknown. This issue is magnified in scenarios where the impacts of a strategic directive extend beyond a planning team's line of sight and require cross-business coordination and collaboration. In other words, the inability to realize business strategies is oftentimes the result of doing the right things in the wrong places and the wrong things in the right places, turning good ideas into failed projects, lost opportunities, and wasted investments.

Consider an example from a U.S. federal government agency that highlights the need to focus strategic objectives, programs, and related investments on clearly defined aspects of the business from the start. An intellectual property (IP) office was seeking to transform cross-agency and public engagement by creating a highly transparent business ecosystem across the agency, partners, and constituents. The program scaled up to over a dozen projects across multiple business units, teams, and technologies, with each team focused on a particular objective and scope of impact. One team was focused on transforming the processing of international registrations across the agency, including engagement with the World Intellectual Property Organization (WIPO).

Program executives assigned the end-to-end transformation of the international registration value stream to a team of business analysts and solution delivery personnel. While program leadership designated the scope of the effort to a specific value stream, enabling capabilities, and stakeholders, one group, the analysts, ignored the directive in favor of a "blank page" approach. These analysts met with business subject matter experts and legacy analysts, the latter of which directed the team to focus on constituent petitions as a priority, with the source of this diversionary thinking resulting from constraints of the current environment. International registration transformation was in fact supposed to eliminate the need for costly, time-consuming constituent petitions except where essential.

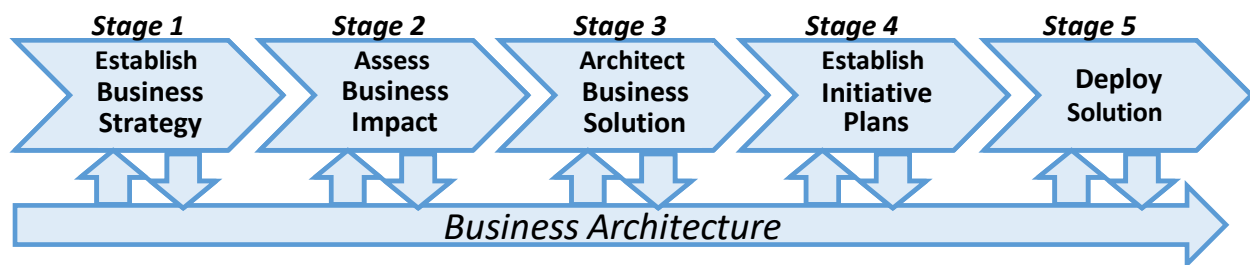
A routine review by program management discovered that the project team had invested nearly three months of time focused on petition processing, while ignoring its primary focus on international registration transformation. In fact, another project team had mobilized to focus on end-to-end petition processing transformation, framed by an entirely different value stream. In short, the "blank page" approach taken by the analyst team resulted in lost time, wasted investments, and, worst of all, alienation of business stakeholders. The false start exemplified by the wayward project team in this story repeats itself dozens or even hundreds of times at medium-to-large enterprises annually, resulting in an endless spiral of ineffective strategy realization and lost opportunities.

Business architecture changes the game by enabling organizational agility through effective, coordinated translation of business directives into targeted results from strategy formulation through strategy realization. Business architecture allows organizations to frame the scope of business strategies, programs and projects, and related investments from the start in clear, unambiguous terms. Business architecture

lays the foundation for expediting strategy formulation through strategy realization, ensuring that business investments focus on doing the right things in the right places at the right times.

### **Business Architecture’s Role in Organizational Agility: The Path to Successful Strategy Realization**

From an overall organizational agility perspective, business architecture plays a role throughout the strategy realization path to increase the speed and effectiveness with which strategies become translated into initiatives, and with which initiatives introduce working changes to the business environment. Figure 1 shows an enterprise perspective on strategy realization for an organization, which occurs continually as a business implements strategies, transformations, and related business directives. End-to-end strategy realization requires many people to work together seamlessly across each of the five stages, such as teams focused on strategy, customer experience, architecture, product management, portfolio management, program and project planning, business analysis, business process, organizational design, and execution. Business architecture is a relatively new addition to the ecosystem of strategy realization but has a valuable role in all five stages, especially, but not solely, in stage 2, Assess Business Impact and stage 3, Architect Business Solution.



**Figure 1: An Enterprise Perspective on Strategy Realization <sup>i</sup>**

Stages 2 and 3 are often skipped when organizations jump from establishing business strategy to executing projects in order to “execute faster.” However, what may appear to be a decision to expedite delivery timelines actually requires an even larger investment of time, money, and effort to get the organization back on track after implementing a misaligned solution, or when it takes additional time to make a new change in the future because redundant solutions are deployed that add to overall environmental complexity. The intangible impact of these decisions can also include customer experience issues, business stakeholder fatigue, and even regulatory or reputational risks.

In the first stage of figure 1, Establish Business Strategy, business architecture may be used to inform strategy formulation, identifying new options for business model evolution. It may also be used to identify potential impacts of strategic options as they are being defined to quickly narrow down those options to only those which are viable, resulting in significant time and mindshare saved in the long run.

In stage 2, Assess Business Impact, business architecture offers an invaluable enterprise level business lens that allows impacts of a strategy to be comprehensively assessed for the entire organization, across all business units and products, internally and externally. Stage 2 exposes the “butterfly effect” of all value stream and capability changes necessary to enable a given strategy, fanning out to highlight impacts to other strategies, stakeholders, new or existing products, policies, current or planned initiatives, processes, and assuming there is alignment with the IT architecture, impacted technologies.

Having a high degree of transparency of the full scope of enterprise empowers teams to work together in new ways across organizational boundaries, versus each team translating the strategy in isolation and implementing their own projects. This leads to stage 3, Architect Business Solution. In stage 3, business and architecture teams work together – across organizational boundaries where necessary – to design changes to the business and technology environment or design new business solutions for any impacted components such as value streams, capabilities, products, and system applications. This perspective represents a significant shift in thinking, yet is an important step forward for creating an agile organization because it ensures that the right solutions are built based directly on the business strategy and built only once in an integrated manner.

For example, the IP organization mentioned earlier was able to bring various people together from across the agency as well as partners and constituents to comprehensively design the international registration value stream and enabling capabilities versus multiple departments and stakeholders trying to solve the problem in their own siloes. In this scenario, capabilities were automated once and reused over and over again across various projects and solutions as required by a given strategic directive. Stage 3 is the point where design thinking can be engaged in earnest based on a well-defined strategy and highly transparent impact points. The degree of transparency provided by business architecture lays a fertile groundwork for exploring a wide range of stories and “what if” scenarios across the business ecosystem.

When organizations skip stages 2 and 3, the resulting projects are often overlapping, sometimes contradicting, and may not be sequenced effectively. Most often the scope of a given program or project is too large or too small, but implementation teams discover this too late in the cycle to convince management to retrench. This situation can even happen when people actively collaborate across initiatives because they are limited by a fragmented, opaque understanding of the bigger picture and organizational constraints.

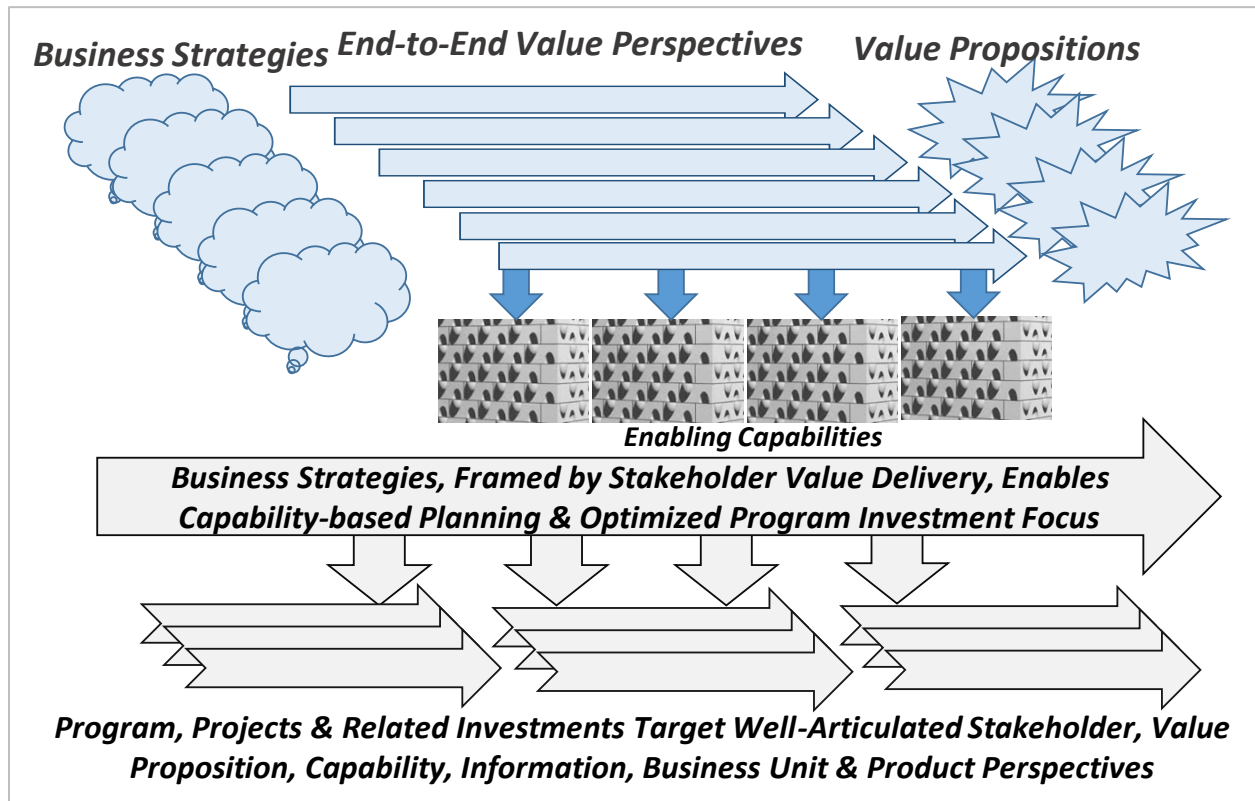
Once a business solution has been designed, stage 4, Establish Initiative Plans, leverages business architecture to determine how to best allocate the full scope of work across initiatives, which often break down into multiple programs and projects with clearly defined scope and delivery sequence. At the beginning of stage 4, the scope of each initiative is framed by concrete changes to the architecture, with a clear articulation of what needs to change or be created using the common architectural components such as value streams, capabilities, and applications.

This initiative planning activity requires business architecture and planning teams to work closely together and, again, represents a significant shift in thinking related to how and when initiatives are defined. It ensures that initiatives are scoped in the right way and delivered at the right time. Our IP organization and the wayward project team that focused on petitions instead of the defined architectural focus for the initiative provides an example of what can happen when this top-down approach is not used (or is disregarded): countless weeks, months or years of precious time and resources can be wasted with zero business value delivered.

In stage 5, Deploy Solution, each initiative goes through its usual cycle of execution. Regardless of the development method used, waterfall or agile, the business architecture ensures that project teams have the right focus at the right time. Business architecture also provides a reusable framework for defining, tracking, and aligning business requirements, user stories, and deployed software solutions.

## The Value and Role of Business Architecture in Agile Execution Approaches

Expediting strategy definition through strategy realization requires a clearly defined, end-to-end business focus that articulates the specific investment targets associated with a given business objective. Figure 2 highlights this perspective in the IP example obtaining an international registration. A series of objectives shown to the left are handed over from business executives. Planning teams associate the objective with a given value proposition, which then becomes the focal point of the overall planning effort and investment.



**Figure 2: Targeting Business Investments through Business Architecture**

Figure 2 depicts the value streams as the focal point of the analysis. Value streams are associated with external and internal stakeholders and enabling capabilities, which in turn are associated with business units, including third parties such as WIPO, information used by enabling capabilities, policies linked to capabilities, information, and the technologies that automate the enabling capabilities. Through these connections, the business ecosystem impacted by the originating strategy comes into clear focus, which in turn frames the investment targets and program scope.

In the IP investment example, the agency sought to ensure that there was total transparency of the international registration value proposition while expediting delivery of the end value proposition. In this example, that meant reducing the need to file a petition unless absolutely necessary. The business objective pointed to the value proposition of an international registration, covering every applicable international jurisdiction. The value proposition pointed to the registration value stream, which engaged

a cross-section of external and internal stakeholders, including the applicant, enabling capabilities, business units, including partners, and related information.

The resulting project was entirely framed around this value stream and related business perspectives. A second parallel project and team focused its energy and efforts on the value stream to decide a petition, thereby avoiding conflicts or overlap of the work being done and results being achieved. The intentional points of overlap involved shared enabling capabilities across the value streams and projects, which highlights a key advantage in applying the business architecture approach; shared enabling capabilities point to opportunities to establish reusable software deployments. Each project and project phase deployed or enhanced capability-aligned software services that become reusable in later projects phases, allowing the program to scale to concurrent projects while reducing delivery timelines.

### ***Business Architecture Provides a Common Vocabulary and Mental Model***

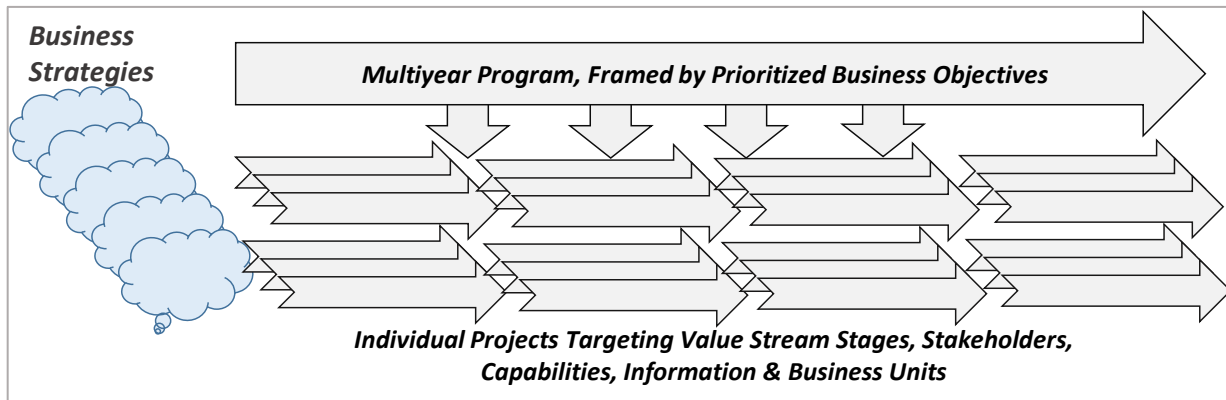
In his 1833 book *On War*, Carl von Clausewitz states: “The first task of any theory is to clarify terms and concepts that are confused... Only after agreement has been reached regarding terms and concepts can we hope to consider the issues easily and clearly, and expect others to share the same viewpoint...”<sup>ii</sup> Expediting strategy definition to strategy realization also requires a common vocabulary to be leveraged across all business units or even external stakeholders who may be involved in developing solutions and helping the organization achieve its goals. This vocabulary must include a rationalized view of business terms like customer, product, and agreement for most organizations as well as any industry or organization specific terms. For example, the IP organization defined common terms such as intellectual property, policy, research, classification, legal proceeding, and petition, as part of its business architecture.

Rationalizing and defining the business vocabulary is extremely introspective and challenging for most organizations. However, the shared vocabulary and mental model of an organization, which business architecture establishes through capability, value stream, and information mapping at the core, saves immeasurable time, which is otherwise lost in conversations where people talk past each other. Solutions developed without this shared vocabulary and important mental model often do not meet business needs.

Fortunately, business architecture reference models have evolved to the point where the time and effort it takes to establish a business architecture baseline is dramatically streamlined.<sup>iii</sup> In addition, a rationalized view of an enterprise is the foundation for any organization that plans to shift towards becoming a cognitive enterprise, where the cognitive enterprise is a learning organization with a centralized knowledgebase that accrues business intelligence over time.

### ***Business Architecture Helps with Strategy/Initiative Alignment and Prioritization***

Consider that a given organization will often have many strategies that it is seeking to address. In the example from the IP organization, the executive team had a long list of strategic objectives that they had to prioritize across a five-year program and dozens of projects and project teams. The two examples discussed thus far involved one project designed to enable expedited, effective international IP registration with a second project focused on streamlining effective petition resolution. In order to accommodate executive directives and priorities, the agency had to execute a number of parallel projects under a single program, as illustrated in figure 3.



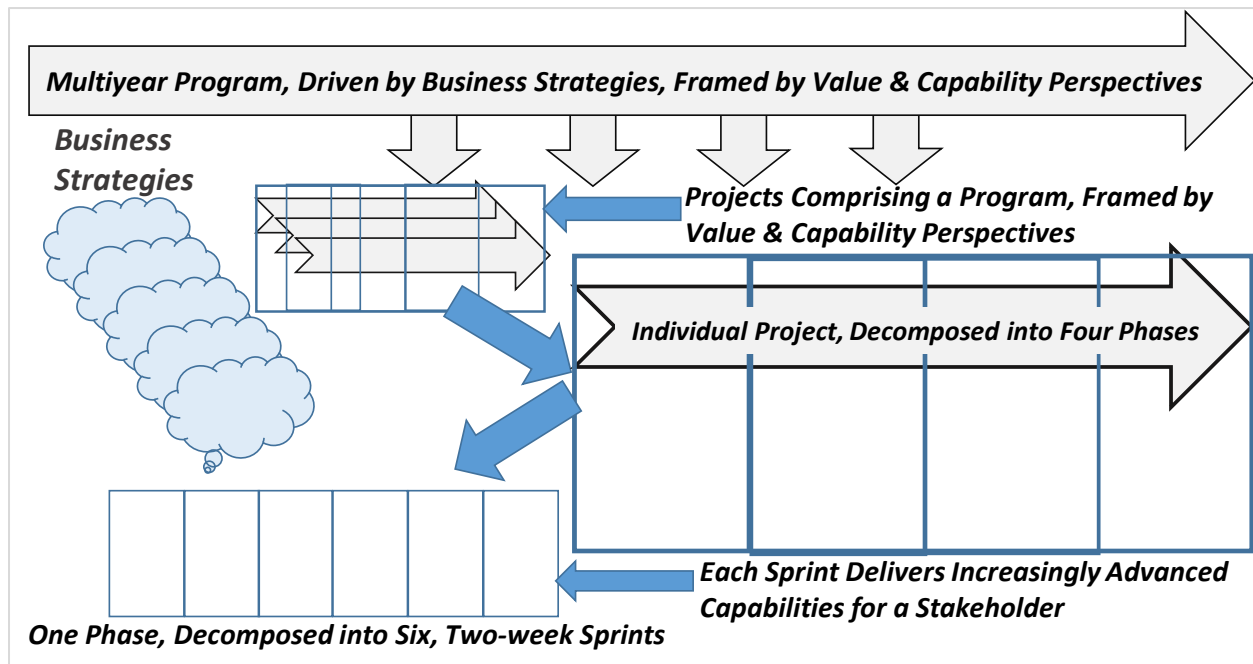
**Figure 3: Strategies Delivered through Business Architecture Framed, Clearly Delineated Projects**

In the IP transformation scenario, the overall program ensured that projects moved quickly from stated objective to the delivery of work, which applied agile project delivery principles that leveraged two-week sprints, agile epics and user stories, daily standups, backlog management, and scrum-of-scrums. With the one exception of the case where the initial international registration project team went rogue and refused to leverage the value stream and capability-framed project perspective, work progressed efficiently and smoothly from value stream stage-to-stage, across targeted stakeholders, focused on automating or otherwise improving enabling capabilities at each phase.

The example of the project team that went rogue makes a strong case for using business architecture to help frame business strategy realization. While project teams leveraged business architecture framed priorities to expedite startup time, streamline business discussions, and reduce exploratory scoping, the rogue team wandered lost for three months, working on the entirely wrong business focal point and costing the organization in time, money, and business credibility. In other words, teams that leveraged the business architecture moved with agile aplomb while the rogue team struggled to get its footing, demonstrating how business architecture makes a real difference between the expedited, successful delivery of business value and a series of failed investments and commitments.

### ***Business Architecture Scopes Initiatives and Provides a Deployment Framework***

In the IP example, the overall program framed a collective set of strategies to be delivered in coordinated fashion, where each project targeted a given value stream or subset of a value stream, and work was prioritized by stakeholder and capabilities for each value stream stage. Consider the specific prioritization and sequencing of work associated with the IP registration value stream. Projects decomposed into four phases, each of which was delivered quarterly. Each phase decomposed into a series of two-week sprints. Each sprint targeted delivery of certain capabilities for a given stakeholder, in context of the value stream stage framing that piece of work. Figure 4 depicts the program, project, phase, and sprint decomposition concept.



**Figure 4: Program Decomposed into Projects, Phases and Two-Week Sprints**

In the IP example, the IP examiner was the initially prioritized targeted stakeholder within a value stream stage of the registration value stream. Project teams delivered capability related enhancements and automations for the IP examiner over a period of multiple project phases, until there was a deployable solution for the examiners to perform their jobs. The project prioritized additional stakeholders across business units, sprint after sprint, phase after phase, until the solution extended across all stakeholders for essential capabilities across that value stream.

This overall framing of programs, projects, phases, and sprints highlights the value business architecture brings to an organization using agile delivery approaches. The IP program was using agile development techniques in both the challenged project associated with the rogue team and each of the successful projects. When the rogue team on the international registration project was replaced with a new team that embraced and leveraged the business architecture, that project quickly regained its footing and began to deliver value across the stakeholder ecosystem. As the project evolved and solution deployed, the overall strategic objective for the applicant as well as internal stakeholders was achieved. In other words, business architecture clearly made the difference between the successful deployment of this project versus the challenged attempt at this project.

### ***Business Architecture Connects the Dots Across Strategies, Architectures, and Initiatives***

Business architecture is not only valuable within the context of one program as the above examples describe, but it also has the unique ability allow dots to be connected across programs, which can be challenging to do in its absence. The shared enterprise level business lens of business architecture, with a focus on value streams and capabilities, becomes the common key for cataloging changes being made as a result of any strategy, target architecture, or initiative. This formal framing of strategy realization makes it possible to definitely identify when changes are being made to the same area of the business, thereby

uncovering opportunities for new collaborations, shared solutions, and coordinated decision-making, such as when to pull back when too much change is being introduced for a given stakeholder.

The IP example highlights additional points in terms of connecting the dots from a holistic perspective. Having enterprise-wide visibility to all strategies and potential changes focused on international registration gave the IP program team a quick way to pinpoint additional factors that should have been considered upfront, such as new treaties and regulations. Another factor was that the international work was eased by deploying a domestic IP registration solution first, which established a reusable baseline for the international solution. The program also had end-to-end visibility and impacts from a global software solution perspective. In this case, a shared database and reusable software services library emerged as a result of this overall program; the agility gained during the deployment stages of the program were formalized and institutionalized to enable this organization to become an agile enterprise well into the future.

### ***Ubiquitous Business Architecture***

One major differentiator of business architecture is that it is not constrained to internal business perspectives. The international value stream in the IP example highlights this external perspective. The original perspective of the business on international registrations essentially ended when the registration request was sent to WIPO, but the value proposition was nowhere close to being achieved. When extending the applicant value delivery perspective end-to-end, the business objective was expanded and clarified. Stakeholder transparency was constrained to internal views and lacked perspective on WIPO engagement. This, in fact, represented a design thinking phase of the program where no one ever conceived of establishing 360-degree visibility into work once it entered the partner domain. Yet the value stream made this external perspective apparent.

The fully expanded stakeholder perspective highlights the concept of ubiquitous business architecture where value streams are not constrained to a single organization but rather cross a business ecosystem which includes other business entities. By expanding the value stream perspective through delivery of all international registrations, the agency delivered major improvements in applicant value delivery. In addition, by adding enabling capabilities to support applicant engagement across the value stream, the need to initiate related petitions was reduced dramatically, which further reduced the demands on an already overworked business unit.

In order for an organization to maximize the value of business architecture, it should leverage a holistic ecosystem perspective on business architecture. The approach focuses on stakeholder value delivery from an end-to-end perspective, which frames the value streams targeted for investment. When this approach is engaged, the basic foundation for an organization to transform itself into an agile enterprise is in place.

### **Introducing Business Architecture into Agile Approaches**

How then do organizations begin introducing business architecture into agile execution approaches to achieve these benefits? Those organizations that already have a business architecture in place have an advantage in that they can immediately begin leveraging it to prioritize and structure agile execution as described above. However, this does require that the business architecture is complete enough and well-structured. For example, the minimum foundation includes definition of key value streams and core capabilities decomposed down to level 3, as well as value stream/capability cross-mapping for areas of



the business being targeted by a given set of strategies. Another key aspect of business architecture that comes into play early in the cycle is the information, which formalizes the business vocabulary and relationships across various information concepts.

The business architecture should be articulated from an enterprise perspective and based on a rationalized view of business terms. From here, the business architecture may be cross-mapped to other business architecture domains such as strategies and products, as well as to other disciplines such as event modeling, process modeling, and data and application architecture. For those organizations that do not yet have a business architecture, one can be articulated and evolved incrementally ensuring that the value stream and capability foundation described above is in place. The aforementioned reference models expedite the business architecture articulation effort. From there, refinements, additions, and cross-mappings to the business architecture are captured opportunistically as dictated by business priorities.

In addition, the use of business architecture must be integrated into the way people work during agile execution. For example, agile product owners need to learn how to use the business architecture to inform prioritization, and all project teams need to learn how to consume architectural scope and input for their projects and sprints. Business analysts also must become fluent in understanding and using the business architecture. Adoption in practice can be challenging because it requires the patience and desire to introduce a new frame of reference into one's mindset, albeit one that provides significant business transparency.

Making these types of changes are of course more successful when supported by other overarching measures to encourage and support people throughout the organization to shift to an agile and enterprise-focused mindset. This can include actions such as executive messaging to describe how the organization of the future will work and deliberate change management activities to help people adjust. Further measures may also be needed such as adjusting funding mechanisms to work across organizational boundaries or adjusting employee compensation and motivational structures.

## **Conclusion**

Business architecture should be leveraged throughout the path to strategy realization to harmonize the execution of business direction across organization boundaries and initiatives. Business architecture ensures that organizations do the right things in the right places at the right times, that align with business priorities and are scoped and integrated effectively. Business architecture is a relatively new addition to the ecosystem of strategy realization teams; it plays a valuable role in strategy formulation, impact analysis, business design, program definition, and agile execution. When business architecture is in place, adopted and leveraged ubiquitously, the gateway for an organization to transform itself into an agile enterprise is in place.

## About the Authors

**Whynde Kuehn** is Founder and Managing Director of [S2E Consulting Inc.](#) and Co-founder and Editorial Board Chair of the [Business Architecture Guild](#)<sup>®</sup>. Ms. Kuehn is a long-time business architecture practitioner, educator and industry thought leader. She is a former practice leader and has developed business architecture for some of the largest business transformations in the world.

**William Ulrich** is President of [TSG, Inc.](#) and Co-founder and President of the [Business Architecture Guild](#)<sup>®</sup>. He is a thought leader in the field of business architecture and business and IT transformation. As a management consultant for more than 35 years, Mr. Ulrich serves as senior advisor, mentor, and workshop leader to corporations and government agencies worldwide.

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<sup>i</sup> Source: Business Architecture Guild<sup>®</sup>, *A Guide to the Business Architecture Body of Knowledge (BIZBOK<sup>®</sup> Guide)*, Part 1

<sup>ii</sup> Clausewitz, Carl von; Howard, Michael, Editor and translator; Paret, Peter, Editor and translator (1989) [1832]. *On War*. Princeton, NJ: [Princeton University Press](#). ISBN 978-0-691-01854-6.

<sup>iii</sup> Source: Business Architecture Guild, [www.businessarchitectureguild.org](http://www.businessarchitectureguild.org)