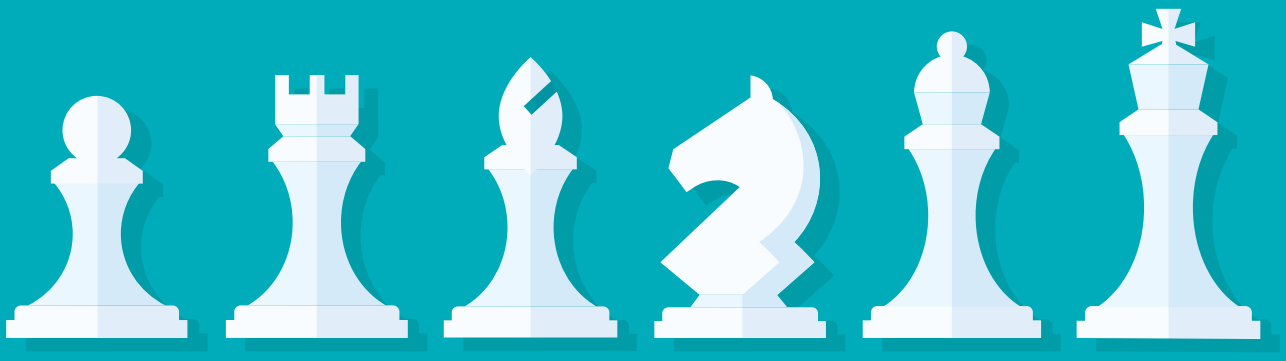
An Executive's Action Plan for Enterprise Agile Transformation & Sustainment

BY MATT LIGHT



Planisware

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“Plans are useless, but planning is essential.”

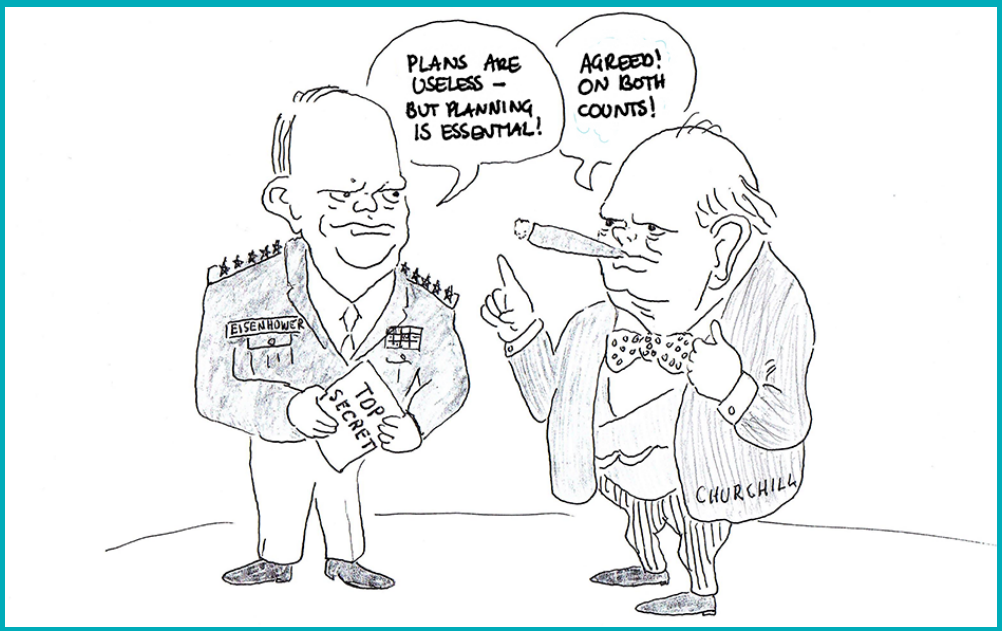
Dwight D. Eisenhower

Famously uttered by Gen. Dwight Eisenhower, the adage above captures much of the Agile mindset and Lean philosophy. Plans are useless because “No plan survives contact with reality." Agile teams are always ready to adapt their plans, exhibiting resilience, as they encounter unexpected circumstances or changing customer needs. As an Agile coach at energy multinational E.ON put it, “The whole point of agility is that you experiment, inspect and adapt.”[1]

But planning is indispensable, because only by planning can teams and leaders define goals and begin understanding the parameters and possibilities that will affect pursuit of those goals. The knowledge and perspective gained by planning will be invaluable in future adaptation.

This is true, not just for product, program, and project management – it’s true for efforts at Agile transformation, too. Detailed roadmaps for Enterprise Agile transformation and sustainment may not be much adhered to further down the road. But the work of planning for both transformation and sustainment is essential.

In this essay, we’ll examine how to prepare for Enterprise Agile – and how to make sure you can inspect your results, learn, and adjust as needed to become and remain a truly Agile enterprise. We do so in five short, executive-oriented sections: 1. The Third Wave; 2. The Agile Change Team; 3. A Flexible Approach; 4. Enterprise Agile Techniques; and 5. Sustainment. A list of executive action items from the essay follows at the end.



1. The Third-Wave: Enterprise Agile

In business, industry, and government, much has been made in the 2000s of various approaches, models, and frameworks for Agile application development, following Lean management's earlier success in manufacturing. From established software team practices like Scrum and Xtreme Programming (XP) to newer models for larger organizations like the Scaled Agile Framework (SAFe), Large-Scale Scrum (LeSS), and Lean Software Development (LSD), various approaches to systems development have defined improved practices and attempted to broaden their applicability.

These models generally acknowledge their basis in quality management and Lean manufacturing principles. Their success has generally been limited to the Application Development (AD) discipline they specifically address. SAFe, for example, focuses on building software solutions. In it, *"The Agile Release Train (ART) is a long-lived, self-organizing, team-of-Agile teams (approximately 50-125 people total) that defines new functionality and plans… and delivers solutions together."* There may be multiple ARTs, but all are focused on systems development[2].

Lean principles and techniques, however, are just as effective in improving enterprise business processes as they are in manufacturing and AD[3]. Today, a "New Wave" of enterprises is applying Agile beyond these disciplines. According to Gartner, *"in order to disrupt, lead and survive, established organizations must be able to operate and adapt as swiftly as external conditions shift and internal aspirations swing. Pioneering traditional organizations are embarking on a 'third wave' of enterprise-Agile transformation initiatives"* (see Gartner's Figure 1 – "Three Waves of Enterprise Agility"). Many of these pioneers are neither

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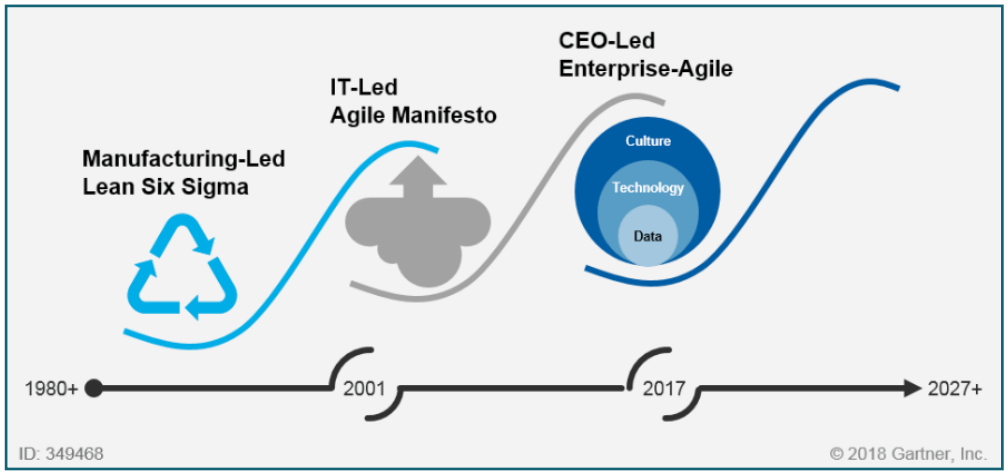
Gartner
(See Figure 1 – Three Waves of Enterprise Agility)

FIGURE 1. Three Waves of Enterprise Agility



Source: Gartner, "Scaling Enterprise Agility to Transform Established Organizations: BNP Paribas Fortis Bank", Jenny Beresford and Michelle Coelho, February 8, 2018

manufacturing nor application development-focused, but in a wide range of service industries. McKinsey & Company recently profiled several successful Lean and Agile enterprise initiatives in financial service firms[3]. Several case studies of executive management adopting and promoting Enterprise Agile or Lean management practices are cited in David Mann's *Creating a Lean Culture*, which also includes many healthcare examples. Energy companies have seen continuing improvements, including E. On, recently profiled in *Lean Magazine*. Organizations from Marketing to Customer Service have used Agile and Lean approaches to dramatically improve performance[4].

Research and advisory company Gartner observes that such pioneers *"have learned from a first wave of business productivity improvement practices applied late in the 20th century, such as Lean Six Sigma and business process engineering. They have also taken lessons from a second wave of Agile principles and practices adopted by IT early in this century."* [5] Users of both Planisware's Enterprise PPM (E-PPM) and Collaborative PPM (C-PPM) solutions have sought to use software to support these third-wave practices, not just in one or two departments, but across the enterprise. Planisware has incorporated significant new functionality in both Planisware Enterprise and Orchestra to meet their needs, with more features on its product roadmaps. As our customers embark on their journeys, we seek to support their success, not just with software solutions, but with a pragmatic approach to best practices that begins with the recognition that, when it comes to process models, no "one size fits all."

2. "ACT" via an Agile Change Team

Bringing Lean and Agile transformation to the entire enterprise is the function of the Agile Change Team (ACT). The need for some form of ACT is one constant generally described by Agile coaches, analysts, academics, consultants, and practitioners alike. The ACT does not perform the service or production activities themselves – but instead leads, plans, and organizes the work of the Enterprise Agile transformation.

The ACT's specific charter is to continue to drive process improvement events, process by process and business unit by business unit, across the enterprise. Generally, the Agile change is not managed by a program or portfolio management office (PMO) or enterprise PMO (EPMO), although a PMO might monitor the program and contribute resources part-time or even full-time for a while.

Not all members of the ACT are full-time, but all do have a formal allocation of their time to a specific role in the transformation (more on this later). Curiously, usually the role with the least allocation is the most important: the role of Executive Champion.

2.1. The Executive Champion Inspires the Enterprise Agile Initiative

"Nothing changes until leader behavior changes" observed organizational psychologist Dr. Rensis Likert (creator of the widely used perception-measurement Likert Scale of 1-5[6]). What executive leaders learn to do in an Agile enterprise is the vital factor in sustaining the change.

The Agile Change Team

The Agile Change Team (ACT) leads, plans, and organizes the work of the Enterprise Agile transformation. Its charter is to continue to drive process improvement events, process by process and business unit by business unit, across the enterprise. Not all members of the ACT are full-time, but all do have a formal allocation of their time to a specific role in the transformation.

Transformations often begin in a sort of variation on the adage, “Think Globally, Act Locally.” They start locally, in one department or function, as in the first two “waves” in manufacturing and application development. Agile advocates then often document and publicize their successes – and these documented and publicized improvements in efficiency, productivity, and quality should help engage management and gain their adoption and support.

The Executive Champion

What executive leaders learn to do in an Agile enterprise is the vital factor in sustaining the change. More important than second-hand lessons is direct, experiential involvement of Executive Champions in ways that also support their own strategic goals and objectives as executives. They are lifelong learners and teachers by inclination, and the ACT should work with them to define the Champion’s normal, Leader Standard Work.

However, such documentation and publicity are not as engaging for executives as direct involvement (and do not immediately add direct value for a customer). Nevertheless, they are key to the success of Enterprise Agile and a justifiable element of the change initiative; without them, executives don’t learn and, as Lean sensei say, *“If the student hasn’t learned, the teacher hasn’t taught.”*

More important than second-hand lessons, though, is direct, experiential involvement of Executive Champions in ways that also support their own strategic goals and objectives as executives, whether those are new markets or new products, or simply growing sales or productivity (for example). Usually, Executive Champions are not well versed in Agile and Lean principles and practices. They will not already know the specific executive actions needed to sustain the change. However, they are lifelong learners and teachers by inclination, and an ACT should work with them to define the Champion’s normal, "Leader Standard Work" that will drive and sustain Enterprise Agile along with their other goals.

Executive Champions will learn most quickly via workplace walks (現場 gemba) with Agile coaches or Lean sensei. (Gemba is Japanese for “the real place” where value is created.) Because of their many duties, Executive Champions may have to minimize the time they spend walking the workplace, but if they have too little such direct experience, then a lack of engagement puts the Enterprise Agile transformation at risk.

Executive management has the role and responsibility to review proposed process, product, service, and other changes.

Executives may consider such walks to be training for others, namely staff who will implement Agile and Lean practices. This is true, but without themselves walking the workplace – observing processes, talking to staff, and witnessing change – they may not fully appreciate the benefits of Enterprise Agile. The "walk" may be of a "virtual workplace" – in a geographically distributed services enterprise, for example – with interviews via videoconference (or, someday soon, Virtual Reality). Even then the walks are needed to identify workplace problems and improvements, and to demonstrate executive engagement with Enterprise Agile.

Once they have come to appreciate the potential of Enterprise Agile to keep contributing significant benefits, Executive Champions start regularly inspecting for examples of improvements in quality and customer value. They look for fast flow, customer pull, visible controls, and begin to stubbornly insist on Agile practices[7]. In addition, they increasingly leverage Enterprise Agile practices in their own strategic planning work, as recently described in the Harvard Business Review[8].

2.2. Cultivating the Agile Enterprise: "Everyone's Job" – But Whose Accountability?

Planning for change, and cultivating an organization that can continuously adapt well – these are not the functions of individual contributors or team members. But neither can they be performed by executive management, because these functions also require detailed work monitoring multiple value streams and analyzing inefficiencies and customer experiences.

Executive management has the role and responsibility to review proposed process, product, service, and other changes. However, in Agile enterprises most change decisions are delegated down to the roles performing the work, while Executive Champions' wide-ranging duties typically preclude them from necessary follow-up inspection of change results, such as performing specialized work like measuring customer experience and devising process improvements (e.g., via DMAIC or similar techniques).

Therefore, a common failing is for a committed executive team to announce support for a Lean or Agile transformation and to proclaim that "Agile is everyone's responsibility." However, this "diffusion of responsibility" typically results in inaction[9]. Often, ACTs find that building a RACI chart like that in Figure 2 is effective in prompting right actions from stakeholders. This helps avoid having too many decisions pushed up the chain of command.

2.3. Sustain Transformation via the Agile Change Team

Major Agile business management studies and frameworks, such as Jim Highsmith's *Agile Project Management*, have placed great emphasis on teams[10]. They have also stressed Agile coaches, and such process managers as Scrum Masters[11]. These are important to managing individual projects and product development efforts. However, although some recent frameworks or methodologies describe Agile leadership, they generally focus – not on executives – but on the standard daily work of team leaders (although, of course, acknowledging the need for executive support)[12].

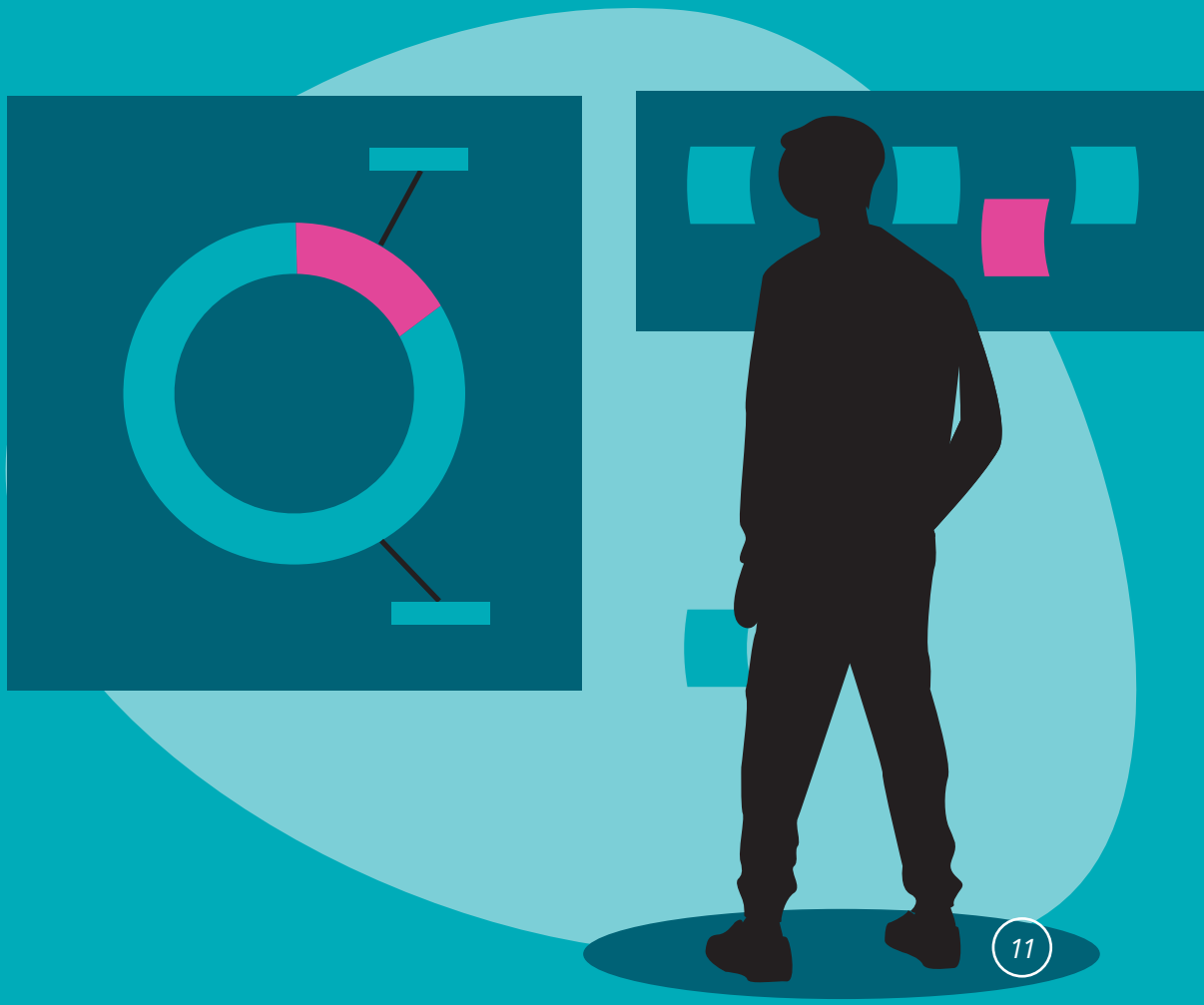
FIGURE 2. Sample (partial) RACI chart

	Executive Champion	Division General Manager	Department Head	Portfolio Mgt Office (PMO)	Agile Change Team (ACT)	Team Lead (e.g., Project Manager)	Contributors
Administer visual controls (e.g. kanban)							
Daily team standups							
Escalate problems							
Establish Agile Change Team							
Inspire Agile transformation							
Monitor process & product/ service for improvement							
Select complementary techniques of Lean & Agile							
Train in Lean and Agile techniques							

Each cell is filled in with an R, A, C, or I to indicate who is:

- **Responsible –** Performs the work, upon assignment
- **Accountable –** Management ownership of the activity (delegates work, but answerable)
- **Consulted –** Opinion is sought (subject matter expert); 2-way communication
- **Informed –** Concerned party kept up-to-date; 1-way communication

In large enterprises, a concerted effort at Agile transformation may involve allocating a dozen or even twenty or more staff for 65% to 75% of their time to ACT activities. After two to three years this may be reduced to fewer than ten or twelve and perhaps only 35% to 50% of their time; and after five to six years, a team of five or ten may be sufficient (see Figure 2).



A broader focus, however, is fundamental to becoming – and remaining – an Agile enterprise. Enterprise value streams cross more organizational boundaries than those focused only in manufacturing or in application development. Therefore, the need for management alignment is particularly essential (see “Shared Direction” in the following). A successful Agile transformation requires staff dedicated to identifying and encouraging process improvements – not just at the individual or team level, but across the entire enterprise.

The ACT is accountable for bringing Lean and Agile transformation to the enterprise, often targeting multiple business units or processes with “rapid improvement events” (RIE or 改善 kaizen, Japanese for "change for the better"), but seldom the entire enterprise at once (except in small-to-midsized enterprises). The ACT may contain several job titles, depending on the size of the enterprise, and the scope of the change (which typically expands over the years after initial successes). The job titles generally include Agile coaches and/or Lean senseis. Other roles performed in the ACT, which may be separate job titles if sufficiently utilized, include:

- ACT Co-ordinator
- Agile Coach
- Benefit Realization Analyst(s)
- Business Readiness Leader(s)
- Organizational Change Manager(s)
- PPM Solution Specialist(s)
- Process Analyst(s)
- Project/Program Manager(s)
- Six Sigma Green Belts and/or Black Belts

In large enterprises, a concerted effort at Agile transformation may involve allocating a dozen or even a score or more of staff for 65% to 75% of their time to ACT activities. After two to three years this may be reduced to fewer than ten or twelve and perhaps only 35% to 50% of their time; and after five to six years, a team of five or ten may be sufficient.

3. A Flexible Approach to Enterprise Agile: Wrong, but Useful

"All models are wrong, but some are useful." This quotation, from British statistician George Box, was cited by the previously mentioned Agile Coach at E.ON, David White, to explain why they don't adhere strictly to SAFe, DAD, LeSS, or some other methodology or framework. *"Proprietary frameworks contain some good ideas,"* notes Mr. White. *"But they're often implemented as totalitarian and prescriptive processes – and of course have become a vehicle for consultants to sell voodoo."*[13]

Now some five years into its Enterprise Agile transformation, E.ON is nearly a $50 billion multinational holding company providing electric utility services. Like most others, E.ON have evolved their own approach to Enterprise Agile, guided by carefully selected advisors. These advisors are typically boutique consultancies with a focused Agile specialty, who work to cultivate in-house expertise to sustain the change. Adapting Agile techniques to Wave 3 is a big part of these advisers' coaching.

3.1. The Fundamentals

The practices of an Agile enterprise generally reflect a simple philosophy: the synergy of bringing together Quality and Efficiency.

FIGURE 3. Quality & Efficiency Principles of Enterprise Agile

Quality is not just an absence of defects in the specified product or service. It is providing the exactly right product or service over time, ever-improving to best meet customer demand and "delight the customer."

Efficiency is not just working hard and trying to be productive. It means perfecting the process to avoid all waste, cut costs, and speed flow to meet customer needs as quickly as possible.

Quality and Efficiency together encompass the five principles of Lean management originally identified by Womack & Jones in *The Machine That Changed the World*[14]. The first two – Value, and Value Stream – mainly support Quality. The other two – Pull, and Flow – mainly support Efficiency. Perfection supports both.

BACKGROUNDER:

The 5 Principles of Lean Management

Value

The first principle, Value, emphasizes the need to perceive – from the customer's perspective – why tasks in a process are worthwhile and help directly create a beneficial product or service, for which they are willing to pay. To understand or "see" Value, is to realize what is a truly high-quality experience for the customer.

Value Stream

From the Value principle comes the second principle, that of understanding the Value Stream that produces the worthwhile, beneficial product or service. A value stream map is a simple diagram of the steps in a process flow. It illustrates all of the actions, value-adding and nonvalue-adding, that take a product from concept to launch (developmental value), and from order to delivery (operational value). Practitioners prepare an "as is" map of the steps and data flows that create a product or service. This can help show where wasted effort and delays occur, and thereby enable development of a better "to be" value stream.

Pull

Pull is the process by which downstream demand – such as customers or users – communicates to those creating the product or service. Customer demand might be signaled by half-full shelves and communicated by managers or sales reps. A need for manufacturing material, or for a software bug-fix, might be communicated upstream via kanban cards. Using a pull approach minimizes the waste represented by overproduction in a "push" system (which attempts to forecast demand and creates inventory which may sit unsold in a warehouse). In a services setting, just-in-time allocation of resources to priority customer service needs is an example of a pull system.

Flow

Flow is the principle that a product or service should move through the steps of its creation process with a minimum of interruption or wait-time. In knowledge work, the "think" time ("developmental" value) in product or service creation may appear to be "wait" time although it is actually a key step. Identifying a fitting cadence around developmental value in a flow is a key challenge of knowledge work. This cadence should be related, not to cycle time, but to queue size; cycle time is just a trailing indicator. Overallocation of knowledge workers exacerbates delays. Growing queues should be attacked in various ways, even by inefficient or part-time resources or "T-shaped" resources (broadly versatile but with deep expertise in one area). Organizations are often best served by using their most talented, productive resources to quickly eliminate emerging bottlenecks (and not, as often occurs, by overallocating them)[15].

Perfection

A process is not perfect until it provides pure value, as defined by the customer, with no waste of any sort (cost, effort, time etc.). In applying this principle the focus often shifts from creating value to reducing or eliminating non-value-adding activities (which can cause backlash if some staff see these activities as their purpose). This is necessary because, usually, the activities that actually create value (as perceived by the customer) are a small fraction of the total activities. Waste is rampant, adding unnecessary costs to products and services and, thereby, reducing the value (benefit per cost) to the customer – so eliminating waste is often the most direct route to growing customer value. Eventually, the pendulum may swing back to finding new ways of providing value, though this will often engender new, different processes.

Source: Rope icon made by Zlatko Najdenovski and tug of war icon made by Freepik, from www.flaticon.com

4. Common Techniques in Enterprise Agile

Elements of any Enterprise Agile approach or framework certainly interact with and support one another. Whether in AD, customer service, finance, manufacturing, or marketing – whatever the business unit or industry – Enterprise Agile is "greater than the sum of its parts."

At first, however, each element should be considered on its own merits as to how well it will address immediate Quality and Efficiency needs. Enterprise Agile is not a monolithic approach requiring that a set of techniques all be implemented together. Rather, as described by this author writing for Gartner, it is an adaptive approach, by which you should flexibly select among the following (and other) defined Agile techniques. First select those techniques that will quickly improve performance for customers, and then add techniques when you see ways to further improve value[16].

Although not monolithic or prescriptive, sequence does matter when implementing these techniques. Approaches to Enterprise Agile will vary by industry and business unit, and as previously noted Agile advisors and coaches must adapt Lean and Agile for Wave 3. It is generally not feasible to, first, implement the management elements needed to streamline quality delivery – not in an environment of constant interruptions, delays, defects, breakdowns, and shortages. To deal with such an environment, local "bottom-up" improvements (e.g., to physical layouts and specific techniques) may be needed first.

Still, when implementing a technical or physical Agile practice, an explicit parallel management practice should usually accompany it. Enterprise Agile involves top-level changes to management practices, including those of executives – not just physical changes to the work environment (e.g., co-location), or changes to technical activities, or process changes.

When implementing a technical or physical Agile practice, an explicit parallel management practice should usually accompany it.

Strategy may start as a top-down process but, once the major goals are set, it becomes a bottom-up-top-down cycle.

These management practices shape the make-up of leaders' "standard work" in Agile enterprises. Without management changes, the changes to Enterprise Agile practices will almost certainly backslide or erode over time. A suitable management or executive practice may already exist, having been implemented in support of previous Agile changes, but should be explicitly identified to address the new technical or physical best practice.

In Lean management, "Standard Work" is a detailed definition of the currently known best steps to do a job or perform a process. Likewise, Leaders' Standard Work defines a set of specific actions, focused on processes in each leader's area of responsibility, which leaders (including senior managers) perform regularly (e.g., daily, weekly, monthly or at other intervals)[17]. Regular management and executive activities bring predictability to the work routines of teams, team leads, supervisors, and others. Leaders' Standard Work is discussed further in Section V, SUSTAINMENT, below.

4.1. Shared Direction

Emphasizing respect for employees, this practice involves development of a strategy – often on one-page (the so-called "A3" sheet of paper) from which are developed goals, responsibilities, and metrics in a process that has been compared with a game of catch ("catchball"). Some enterprises follow a specific step-by-step catchball process (see Figure 4).

Strategy may start as a top-down process but, once the major goals are set, it becomes a bottom-up-top-down cycle, with dialogue among senior leaders

Leaders too have "Standard Work"

In Lean management, Leaders' Standard Work defines a set of specific actions, focused on processes in each leader's area of responsibility. Senior managers perform these regularly, bringing predictability to others' work routines. Unlike standardized work specifications, Leaders' Standard Work does not include a sequence of timed steps, although the work typically does take place at specific times (e.g., 12:00 noon every other Thursday). Clarifying what's needed from senior staff by defining specific activities not only fits their "get it done" mindset but eases the basics of Agile support.

Emphasizing respect for employees, the Shared Direction practice involves development of goals, responsibilities, and metrics in a process that has been compared with a game of catch.

and project teams about how to achieve (or adjust) the goals. Also called hoshin kanri (方針管理 - Japanese for “compass direction” or “strategy deployment”), it stresses that the employees are the most expert in their jobs, and are best able to determine the resources and time that are both available and necessary to reach the goals.

4.2. Visual Controls

Foundational to Enterprise Agile are a set of visual controls and a regular accountability process. By simplifying the connection of people to their processes, visual controls strongly support Enterprise Agile.

For example, using kanban cards, manufacturers implement "just in time" production. Kanban (看板 - Japanese for “signal”) cards are used up along with the material they represent, and the last cards in the “deck” are yellow and red, and therefore signal when material needs replenishment. To minimize inventory costs with “just in time” production, visual controls are not just an afterthought to process design but an intrinsic part of how the process will work.

FIGURE 4. The "Catchball" Process

Source: Kanbanize

Visual controls take many and varied forms based on need, but generally make it easy to monitor process execution. They do not apply only to individual contributors and supervisors, but also include standard activities for more senior leaders and executive management. Management must be as disciplined as teams and team leaders for Enterprise Agile to thrive.

Whether the visual controls are just simply legible, or made visually appealing, the main thing is to have a good reason for each control. They may be implemented on a piece of paper on a bulletin board, or on a software system's monitor displayed to a distributed workgroup, but however implemented, the controls should be few in number and directly related to key processes and their targets. For most jobs it is neither possible nor desirable to have a visual control for all (or even most) tasks, only for key, regular activities. By enabling ongoing comparison of targets with actuals, visuals reveal opportunities for improvement.

Team members respond with enthusiasm to the increased authority they have over team processes.

4.3. Stand-up Meetings

The parallel management practice to visual controls is that of short "Stand-up" meetings during which team members look at the controls together, providing accountability to each other. The focus is on team performance and process improvement. The output or goal is to solve work problems and improve processes – not report information to other business units nor to reward or reprimand individual or team behavior.

Sponsoring, or directly leading, regular Stand-up meetings is a key part of every manager's, supervisor's, or team lead's commitment to enterprise agility. The Stand-ups are typically short and first thing in the morning. (Or second, after tea or coffee!) When practicable, they take place in or near the group's work area, whether that is software developers' "Cubicle City," or a manufacturer's factory floor, or a paneled conference room on the executive team's "Mahogany Row."

The meetings generally focus on the visual display of the status of programs, projects, activities or tasks. A portfolio of projects might be visibly portrayed in a dashboard. Project tasks might be shown by kanban-like cards per person – often actually adhesive notes (e.g., Post-its) on a whiteboard. Status of activities and tasks is often indicated by a green (complete) or red (late) dot; red items are first to be discussed. If an issue or problem cannot be solved by the team, then

In Enterprise Agile, Stand-ups are held at every level of the enterprise (including C-level executive meetings).

Agile practice is to escalate it directly to the management level that can solve it, generally through the project manager, team leader, Scrum Master, or equivalent.
Team members respond with enthusiasm to the increased authority they have over team processes and with the individual empowerment and respect for know-how that are part of Agile and Lean management. At first, however, they may be sensitive to the increased visibility into their business processes that comes with Enterprise Agile, particularly daily red-green visual controls.

Though face-to-face meetings are preferred, often meetings cannot be physically co-located; also, transporting big whiteboards to the meeting place may be difficult, so software like Planisware's is often used to project a computerized whiteboard, dashboard, or other visual control or to share it virtually online.

Cards, whiteboard Post-its, or other visual controls can also be used to track employee improvement suggestions and "Stop & Look" notifications (described in the following). They let employees track the progress of their ideas for improving processes, products, and/or services, which engenders employee engagement with Enterprise Agile as they see visually that management acts on their ideas.

In Enterprise Agile, Stand-ups – whether co-located physically or, by necessity, electronically – are held at every level of the enterprise, from individual contributors meeting with their supervisors, to managers meeting with their vice presidents, to C-level executives meeting with the CEO.

4.4. Executive Stand-Ups (and Sit-Downs)

Stand-ups of individual contributors with supervisors are best kept under 15 minutes or so, but weekly or biweekly management meetings addressing more complicated organizational activities may take longer – and require seating (especially for older, more "senior" management). Weekly or biweekly may seem quite frequent, but an Enterprise Agile approach explicitly seeks to speed decision-making. As noted in *HBR: How to Make Agile Work for the C-Suite, "Strategy, competitor actions and timely responses do not fit neatly into a fixed calendar."*[18]
Frustration with late decisions at companies like Textron and Cardinal Health led them toward continuous planning to ensure that resources are allocated to evolving priorities and away from efforts with diminishing returns. To maintain strategic alignment and visibility, such Agile enterprises use *"widely accessible dashboards that connect metrics across the company and link individual team*

metrics to aggregated company-level metrics"[19]. A focus on such metrics and dashboards helps in identifying and solving problems via visual support. A display of resource overload in Planisware, for example, might prompt management to limit work-in-progress to realistic levels, and maximize flow. A PMO may track interdependencies, present analysis of alternative mixes of initiatives for review and selection, and more.

When executive leaders publicize to the company how they are organizing their own work with Agile, it sends a powerful message of transformation throughout the enterprise.

In another example of a Lean workplace, at AB InBev, C-Suite executives share a physical joint table in their "suite," so that they can work on issues quickly, together, in a less bureaucratic environment. *"This means no one has to call a special meeting, and issues do not have to be worked through different functional silos and then reintegrated at the top. This type of management boosts the velocity of decision making."*[20]

4.5. Program Increment Planning

SAFe is a method for managing large application development programs; its "Program Increment Planning" (PIP) practice may be adapted to the Enterprise Agile context for program planning. Companies using SAFe generally have – In addition to morning team standups – periodic PIP sessions, which are two-day affairs for all participants in a large software project/program, who typically meet by video conference. These meetings are usually quarterly and may involve scores of developers – up to 125 developers in a "team of teams". As Dean Leffingwell, creator of SAFe, notes in *SAFe Distilled*, *"There is no magic in SAFe – except maybe in program increment planning."*[21]

During a PIP session, Day 1 establishes or reviews the business context and the vision for the system under development. This involves consideration of customer satisfaction measures and any necessary updates to the system architecture. For most of the day, the various teams break out into separate meetings to plan how they will meet the objectives of the next Program Increment (PI). That evening, the product managers and Release-Train Engineers (RTEs) revise any features that are unplannable (too big, with too many dependencies, etc.). The team breakouts continue on the morning of Day 2, and include a summary for the business-side product managers ("product owners") of each team's development objectives. Developers describe their planned work in terms of the goals and outcomes they believe the business owner wants to achieve.

The various teams reassemble and bring their plans together over a two-hour working lunch, visually combining them kanban- or Gantt-style in a Program Board. This may be a physical whiteboard displayed via videoconference, or a software equivalent shared virtually via a system like Planisware's. Finally, after a consideration of program risks, the group holds a vote of confidence and, if the final plan scores less than three on a scale of five, then the plan is revisited, with adjustments to scope, resources, and more. The authors of SAFe stress that, in addition to the planning work itself, the PIP session's benefits include team-building, establishment of expert-communications networks, alignment of application development with business units and with architecture, and more.

A similar approach, not specific to application development, is the practice of Program Value Reviews described in *Program Management for Improved Business Results*[22] and *Lean Enterprise Value*[23].

4.6. Reflect & Study Workshop

Agile enterprises also regularly set time aside for focused analysis of process performance. An important concern of the Reflect & Study Workshop is to understand the causes of poor quality in products or customer experiences, particularly those due to abnormal "special causes" (vs. "normal cause" variations, which are within a statistically normal range). If a process shows excess special-cause variation, it is analyzed for improvement.

This practice developed from the "Check" step in the "Plan-Do-Check-Act" (PDCA) Quality Cycle (sometimes referred to as the Shewart Cycle, and also equated with the "MA" ("Measure, Analyze") portion of Six Sigma's DMAIC approach, an acronym for Define, Measure, Analyze, Improve, and Control). In Agile application development circles, it is often referred to as a "Heartbeat Retrospective," to indicate that it occurs at regular intervals, like a heartbeat.

Under this practice, the team gets a regular opportunity at continuous improvement, rather than waiting for a special occasion. The team reviews either their current processes, or the results of a change to see whether it was an improvement and how much. A Reflect & Study workshop is generally a facilitated meeting of two or three hours. The interval between meetings (bimonthly, semiannually) depends on the scope of activities to be reviewed.

4.7. Rapid Improvement Event

When opportunities for improvement are identified, a Rapid Improvement Event (RIE) may be initiated, focusing on a particular process in the value

stream to quickly remove waste or boost value. Many RIEs (or kaizen) use Six Sigma's DMAIC approach, which: "Defines" the customer's top-quality experience with the product or service; "Measures" the process delivering the experience; "Analyzes" deviations; devises "Improvements"; and implement "Controls" for the improved process.

4.8. Stop and Look

Under this principle individual employees are empowered to act immediately on problems. Properly trained and empowered, employees can halt a process if they spot a severe enough problem. Stop and Look is also known as andon (行灯 – which is a traditional Japanese paper lantern, so pulling the andon cord will "shine a light" on a problem).

For example, in application development, a programmer might realize that a requirement as specified is bizarre, and would be futile in supporting the feature he is building. Under "Stop and Look" he can halt work – even if the delay affects others on the team – and get clarification from the product owner (or business analyst, or designated user).

Stop and Look can also apply to other settings, such as a manufacturing production line. If a team member spots a quality problem (e.g. a pattern of defects), he or she can stop the production line until the root cause is determined. Stop-and-Look recognizes that, despite the delay and associated waste, building a defective product – or useless software – would be worse.

4.9. Root Cause Analysis

In Agile enterprises, a popular way of finding the root cause of problems is with the Lean management technique of asking "5 Whys." Starting with the

Reflect & Study the 5 Whys

The "5 Whys" technique is consistently successful in finding the root cause of problems large and small. Starting with the general problem statement, analysts keep breaking down the problem, from the general to the specific, until they reach a solution. The technique is often used effectively during "Reflect and Study" retrospective workshops, for which Agile enterprises regularly set aside time for focused analysis of process performance.

problem statement, analysts then keep asking why the problem occurred. Perhaps a customer order was filled wrong. Why? Perhaps the quantity shipped was wrong, but why? The customer incorrectly entered their order on the Website. Why? They were confused by the interface. Why? They clicked the wrong box for the intended quantity. Why? Visually lining up the quantities with the boxes is problematic. By asking "The 5 Whys," analysts reach a solution of re-arranging the display for better alignment of the quantities with the checkboxes.

This technique is consistently successful in finding the root cause of problems large and small. It is often used effectively during the "Reflect and Study" retrospective workshop to analyze trends.

5. Sustainment

5.1. Leaders' Standard Work

As mentioned in Section IV, "Standard Work" is a definition of the best steps to do a job, and Leaders' Standard Work defines actions in each leader's area of responsibility, which they perform regularly (e.g., daily, weekly, monthly or at other intervals)[24]. These actions, of course, should adapt, change, and improve over time.

Defining Leaders' Standard Work brings predictability to their work, supporting and enabling their colleagues' work and planning. Unlike standardized work specifications (e.g., for production workstations), leaders' standard work does not include a sequence of timed steps, although the work typically does take place at specific times (e.g., 12:00 noon every other Thursday).

Clarifying what's needed from senior staff by defining specific activities not only fits their "get it done" mindset but eases the basics of Agile support. Examples of Leaders' Standard Work include:

- A Manager's daily workplace walk (gemba) with at least one Team Lead;
- A Value Stream Manager's verification of the standard work of managers or supervisors who support his or her value stream;
- A General Manager's review of performance trends, and leadership of weekly or biweekly improvement meetings;
- C-level executives' and their reports' review:
  - of the project portfolio – to approve, remediate, or cancel projects; and
  - of the resultant product portfolio – for ongoing value enhancement (vs. diminishing returns)

Consistent performance of Leaders' Standard Work at the different layers of the enterprise enables managers and executives to see new areas of change, improvement, and value. It means more than attention to the visual controls, reports, structures, and techniques of your Enterprise Agile implementation. That attention, with a focus on agreed-upon goals and accountability for reaching them, is necessary but not sufficient. Enterprise Agile supports

If senior leaders and executive management do not consistently perform their own standard work then certainly others will not.

adaptation and evolution as things change and improve – so that, as senior management envisions new areas of change and value, they will drive adaptation of the controls and techniques accordingly.

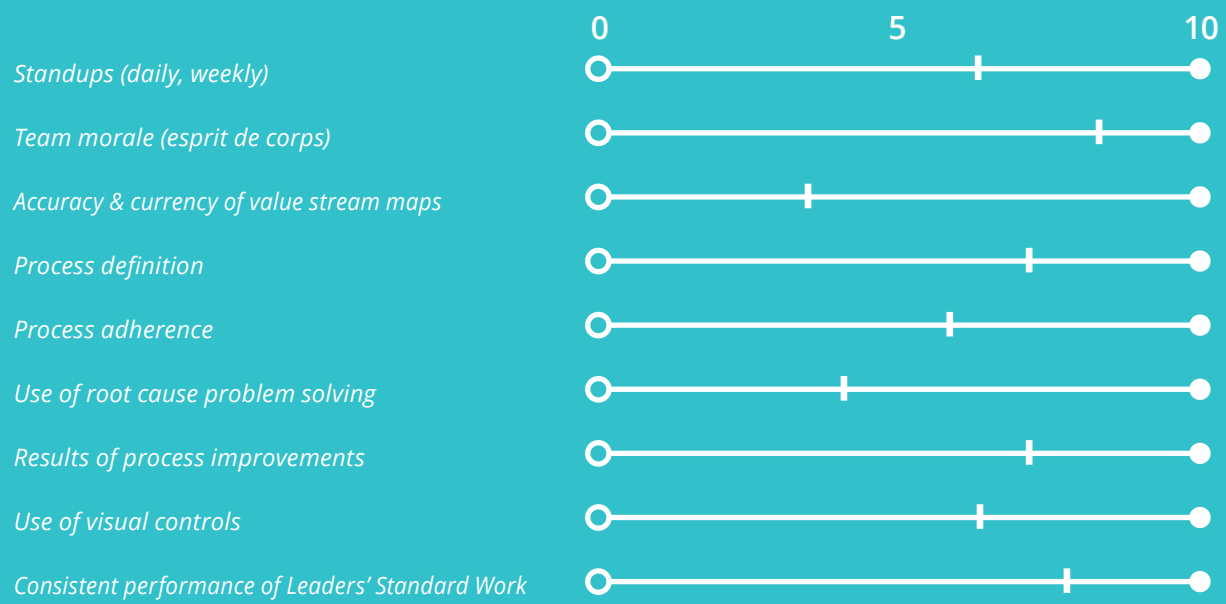
5.2. Tuning the Enterprise Agile Engine

Upon implementing some, most, or all of the preceding practices – and perhaps others – review their efficacy and value as a system to drive further improvement and acceptance. Stakeholders will see that the management system itself is subject to the same PDCA Quality Cycle inspection as other work activities. A regular (e.g., semiannually, quarterly) assessment of the management system can contribute strongly to sustaining the organizational change, and to determining which practices to keep, adjust, or discontinue (see *Key management system areas to assess* box below).

Old habits die hard. Even when improvements obviously work well, they can fall by the wayside if not supported via controls and accountability – while older habits reassert themselves, which they will if old Key Performance Indicators (KPIs) are not replaced. If senior leaders and executive management do not consistently perform their own standard work, which they defined themselves with the ACT, then certainly others will not. Managers should continue to regularly walk the workplace – and for executives, the occasional workplace walk in which they observe processes and speak with managers and frontline staff, will both uncover issues to address and uphold the integrity of the Enterprise Agile transformation.

Key management system areas to assess

This assessment can be based on both the ACT's observations and on interviews with a sampling of team members, managers, and executives. Areas to assess, on a scale of 1-10 (partly for comparative purposes later on), include:



Summary

This essay has described the benefits of Enterprise Agile, its essential elements, and some ways of both effecting necessary organizational change and sustaining it. Specific action items, summarized in the Executive Action Item Recap, are complementary, with synergy among them, but should be implemented in increments en route to Enterprise Agility.

With a successful Enterprise Agile transformation, may your business, corporation, government agency, or other organization continue to thrive, improve, and provide ever-increasing value to those you serve.

Executive Action Item Recap

- "Think Globally, Act Locally." Start in one department or function, document and publicize to engage management and gain their adoption and support.
- Get involved directly in ways that support your strategic goals and objectives as executives.
- As your transformation expands, use software to support third-wave practices, not just in one or two departments, but across the enterprise.
- Establish an Agile Change Team (ACT) and identify appropriate allocation (e.g., 35%, or 70%) of its members to team roles. Plan for staffing and allocations to change every couple of years.
- Work with the ACT to define Executive Champions' normal, "Leader Standard" work.
- Walk the workplace with Agile coaches or Lean sensei, with some regularity, either physically, virtually, or both.
- Regularly inspect for improvements in quality and customer value (e.g., faster flow, more customer pull, effective use of visible controls), and stubbornly insist on Agile practices.
- Leverage Lean and Agile practices in how you perform strategic planning.
- Delegate most change decisions to the roles performing the work.
- Build a RACI chart – naming who is Responsible, Accountable, or to be Consulted or Informed – for different Enterprise Agile change activities.
- If lacking qualified Agile coaches or Lean sensei, then hire Lean-Agile specialists with at least a decade's worth of references. Often these are found in boutique consultancies, rather than larger generalist firms that staff disparate engagements opportunistically.

- Study the principles of Lean (Value, Value Stream, Pull, Flow, and Perfection) and use them to analyze opportunities to improve Quality and Efficiency. Remember, “Quality Costs Less."
- Flexibly select among the various Agile techniques described, to quickly improve, and then add techniques when you see ways to further improve value. To recognize opportunities, study the techniques described (and others):
    - Leaders’ Standard Work
    - Shared Direction
    - Visual Controls
    - Stand-up Meetings
    - Executive Stand-Ups (and Sit-Downs)
    - Program Increment Planning
    - Reflect & Study Workshop
    - Rapid Improvement Event
    - Stop and Look
    - Root Cause Analysis
- Perform your Leaders’ Standard Work regularly, adapting it over time.
- Review your Enterprise Agile system regularly (e.g., semiannually) to drive further improvement and acceptance, assessing key areas on a 1-10 scale for comparative purposes over time
- Replace old Key Performance Indicators.

Abbreviations

ACT	Agile Change Team
AD	Application Development
ART	Agile Release Train (an element of SAFe)
DAD	Disciplined Agile Delivery
DMAIC	Define Measure Analyse Improve Control (a Lean Six Sigma improvement cycle method)
EPMO	Enterprise PMO
KPI	Key Performance Indicator
LeSS	Large-Scale Scrum
LSD	Lean Software Development
PDCA	Plan-Do-Check-Act Quality Cycle
PI	Program Increment
PIP	Program Increment Planning
PMO	Program or Portfolio Management Office
RIE	Rapid Improvement Event
RTE	Release-Train Engineer
SAFe	Scaled Agile Framework (one of the leading methodologies for scaling Agile Development)
XP	Xtreme Programming

Endnotes

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