What's Lean Agile & How does it allow teams to progressively improve customer satisfaction & service delivery?

CC pace

Our Findings

Lean-Agile methods are helping workgroups to significantly increase their productivity and efficiencies. By significantly, we mean leaps of greater than 50%. What's truly remarkable is such gains are repeatable. It is reasonable to expect productivity gains for lean-agile teams to become a quarterly event with teams over time reaching milestones of 200%, 400% and greater.

These techniques when thoughtfully implemented dovetail nicely with traditional Project Management practices and resolve a number of new expectations the PMI's PMBOK 3rd edition has placed on the PMO and Project Managers, in regards to maintaining and monitoring product and process performance metrics.

Can Lean-Agile work for you? While some Agile solutions are uniquely designed to speedup software development, the underlying lean principles and the majority of Agile methods are indeed applicable to almost any service based workgroup.

Should you be using Lean-Agile? If your objectives are to significantly improve customer satisfaction, delivery rate, productivity and service quality, to manage your business by use of metrics and run charts, and to expect to see real evidence of teams breaking out, stabilizing or backsliding, then the answer is yes – Lean Agile can work for you.

What is Lean-Agile?

Lean-Agile is a combination of Lean Thinking and Agile disciplines. Lean is the 'What' and Agile is the 'How'.

Lean evolved from process improvement efforts of manufacturing organizations such as Toyota. Initial improvement efforts focused on operations but later included 'Services' as found in the 'office' (e.g., HR, Order Delivery) and R&D (e.g., Product Development and Software Development).

#	Performance Measure	Operational Definition
1	Product Complete • Planned • Actual • Forecast	# of Story Points Planned & Completed as recorded in a Bum-Up Chart and a forecast of remaining stories to be completed
2	Customer Cycle Time	Time to Market - Customer Valued Story Points delivered by Release and by Project
3	Product Delivery Rate (Velocity)	Velocity is a measure of the rate customer value added work is getting completed (story points per iteration)
4	Process Efficiency	Ideal Developer Days (IDD) is a measure of efficiency and sums up all developer work efforts needed to complete all tasks for all stories during a development iteration
5	Product Quality	Number of Defects as found in a controlled environment
6	Customer Satisfaction	Stakeholder Survey/Customer Survey

ccpace

Lean Thinking helps us understand what our customer truly values and establishes metrics designed to provide evidence of our ability to satisfy their needs. Table A provides a typical grouping of such metrics.

Lean Thinking gives leadership and teams tools to see excessive waste, ceremony and complexity within our daily activities, to recognize which are impediments worth attacking, and then apply an appropriate improvement to obtain a desired result. Most importantly Lean insists we maintain run charts that demonstrate our performance over time.

What is Agile?

Agile is the implementation of Lean Thinking. It is a tool box full of tried and proven disciplines, techniques and tools for speeding up and delivering on time. Not all Agile ideas will work within a given team. Using lean thinking, you will first determine what improvements to make, and then select from the Agile arsenal those items that are known to have had the desired impact.

Agile methodologies have blossomed in the past few years; however, its roots go back much farther to the 1980s.[1]

In recent years, we have seen Agile implemented alone without the planning benefits of Lean. While teams can indeed attain the initial benefits of Agile, they find it difficult to quantify how much better off they are. Oversight groups and Senior Management struggle to get behind such efforts because they have difficulty assessing if the gains are real, sustainable, and repeatable and if so then by how much.

Agile Methods are Often Grouped as Follows:

Scrum - A Planning and Scheduling Technique – Scrum is a simple, fast and accurate work scheduling technique designed to deliver value in small iterations (i.e. batches). Scrum adheres to PMI's PMBOK 3rd edition approach to completing a Work Breakdown Structure and can be used for any "Work Request' and not just software development. Scrum creates backlogs (lists) that teams work in a FIFO approach. New items cannot be picked from the backlog until the current work-in-progress is complete. Scrum teams always give empirical evidence an item is 'Done' by giving a demo of the solution to the customer. Scrum teams reflect at the end of each iteration on what went well and what needs to improve. Scrum teams see change as an asset and not as a liability, so they welcome change and adapt quickly.

[1]Hirotaka Takeuchi and Ikujiro Nonaka: "The New New Product Development Game" Harvard Business Review, 1986

Software Engineering Techniques and Tools - Most engineering tools are specific to product development, but the underlying principles are relevant to all workgroups. These principles are to right size your tools and mistake proof your work product. Examples of the specialized techniques and tools are Test Driven Development, Automated Test and Continuous Builds.

A Leadership And Team Philosophy – Agile teams and their Champions believe in a set of principles that encourage teamwork and accountability. By this we mean that decisions for how the product is built are determined by the Agile team, while the 'what I want' is determined by the business stakeholders.

How do I know if my organization is Agile or Lean-Agile?

Agile is often first introduced to an IT organization by a development team that is eager to deliver value but unable to do so within their current structure. They know Agile works and begin to apply the techniques the best they can. Unfortunately, this approach often has limited success. While the team and those who are actively involved sense the improvements they have made, they lack hard verifiable evidence of the gain and no way to convince senior leadership of the progress made or of the potential for future improvements.

You can see this if you have teams that appear to be delivering faster but no one is quite sure how much faster and whether it is real gain.
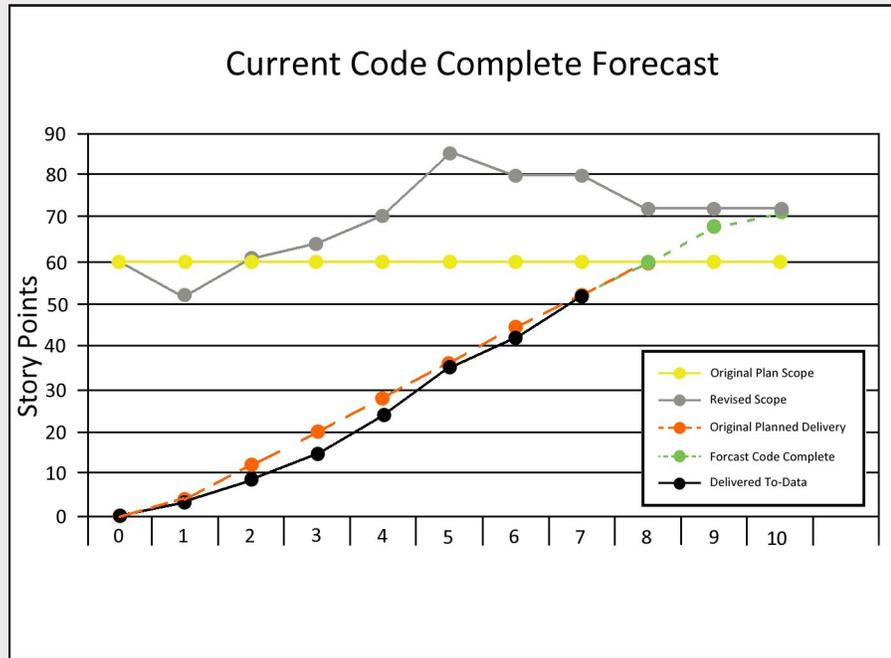
You can tell if your teams are Lean-Agile by the fact that IT Management has begun to manage their portfolio of work by reading run charts and histograms (see Examples 1 through 3) that provide trends of a team's productivity, efficiency, customer satisfaction and product/service quality.
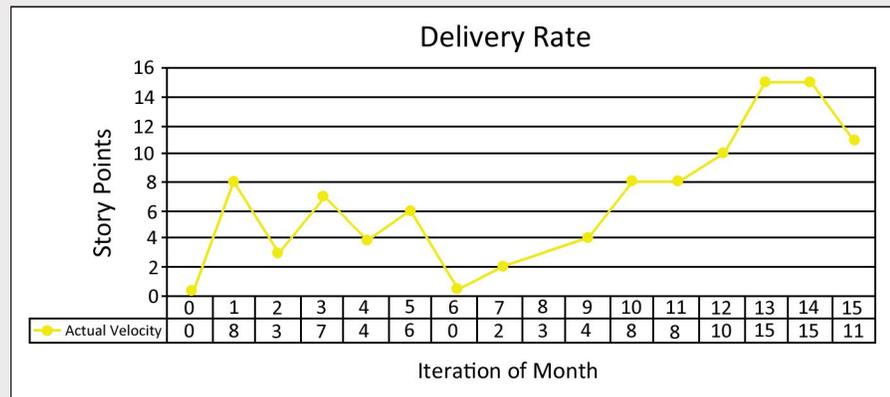
Conclusion

Employing Lean-Agile can create a cultural revolution within an organization. It is a new organizational state of performing work and managing work by performance metrics.

Example 1 – Current Code Complete

Current Code Complete Forecast

Legend:
- Original Plan Scope
- Revised Scope
- Original Planned Delivery
- Forcast Code Complete
- Delivered To-Data

(Y-axis: Story Points, 0–90; X-axis: 0–10)

Example 2 – Delivery Rate

Delivery Rate

(Y-axis: Story Points, 0–16; X-axis: Iteration of Month)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Actual Velocity	0	8	3	7	4	6	0	2	3	4	8	8	10	15	15	11

Example 3 – Customer Satisfaction Survey

Quality of Work

- Much Better 13%
- Worse 13%
- Better 41%
- Exactly the Same 33%