

Agile Transformation for Organisations and Projects¹

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In 1988, Barry W. Boehm, PhD, introduced a spiral model for software development. In the paper presenting this model, Dr. Boehm quoted some provocative voices in the then-raging debate on software life-cycle process models: “Stop the life cycle—I want to get off!” “Life-cycle concept considered harmful.” “The waterfall model is dead.” “No, it isn’t, but it should be.”

Interestingly, he was not talking about project management but about product-oriented life-cycles. As we knew then and know today, pure waterfall is not a life-cycle approach for all projects. The profession is looking for ways to introduce iterative and incremental planning, execution, and monitoring, as suggested by Dr. Boehm’s spiral model. Agile life cycles have become major contributors to complement or even replace waterfall for certain projects. (<http://csse.usc.edu/TECHRPTS/1988/usccse88-500/usccse88-500.pdf>)

Today, as surveys show, the use of hybrid project management approaches is escalating. To use them, project managers need a wide range of knowledge and skills. The project management Process Groups as described in A Guide to the Project Management Body of Knowledge (PMBOK® Guide) are iterative themselves and establish progressive elaboration of project artifacts — they support waterfall and agile life cycles alike (see also <https://www.linkedin.com/pulse/pmis-pmbok-process-flow-iterative-incremental-walenta-pmi-fellow>).

The Need for Organizations to Become Agile

Recently, I was working for an organization that has, for more than 140 years, produced and sold devices. The company embraces innovation and extended their markets globally in the past 15 years. As with most organizations, digitization is a phenomenon company leaders must deal with, as new competitors enter the market with digitized offerings, and as customers expect intensified and individualized service. Executives of this company understand that agility is the primary driver of an organization’s success in today’s complex and disruptive global marketplace. Organizational agility can be described as the capability to quickly sense and adapt to external and internal changes to deliver relevant results in a productive and cost-effective manner.

PMI’s 2017 research shows that 75 percent of organizations with high agility report 5 percent or more revenue growth as well as improved project success compared to those with low agility.

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The drivers behind becoming a more agile organization are mainly people- and process-based, as PMI's research shows (<https://www.pmi.org/learning/thought-leadership/pulse>).

On the process side, agile organizations can accommodate fast portfolio changes and continuous reprioritizations. They consistently use customer and market data to sense external stakeholders' wants and needs, and have a broad range of methods, tools and techniques to apply to projects and ongoing business.

On the people side, agile organizations understand that they should build an open culture and enable their employees to make decisions, select the appropriate methods and lead by example. Organizations with high agility employ project professionals having skills in a variety of approaches in 88 percent of the cases, in contrast to 13 percent for companies with low agility.

Different Approaches to Become a More Agile Organization

In my above example, I helped that organization establish a portfolio review cycle of six months, leading to a shorter and much more stable list of projects to work on (five percent changes to approved portfolio versus 30 percent before). This enabled it to adapt to new project requests in a timelier manner. As a consequence, the employees saw fewer changes in project priorities, task switches/multitasking and emergency calls. They reported higher work satisfaction and increased productivity. Project requesters saw a higher reliability of project delivery and budget conformance. They were also satisfied with the new selection process, which was deemed transparent, fair and adaptable. Establishing a portfolio management process was a step to become more agile as an organization, which sought to be more adaptable to changes, more transparent about what was going on and more secure with what lies ahead.

Moving an organization from a mechanistic, hierarchical, functional, formalized and bureaucratic system (related to Michael Porter's teaching) to an organic, flat, networked, decentralized system (promoted by Henry Mintzberg's work) is a major strategic change and needs buy-in from the board and the management team. The culture, including mindsets and behaviors, needs to change from a competitive, career-driven motivation to a collaborative, servant-leadership style. Culture change takes time, as it involves changing human behaviors, and may require replacement of staff.

Some companies chose radical approaches to become agile. A good example is the Dutch bank ING, which changed its culture and organization dramatically to become more adaptive and organic, from the top down. In 2015, ING changed its whole organization of 3,500 employees to a flat structure organized in squads and tribes to serve customers better. They embedded IT into business, and changed the mindset of how to manage people and collaborate to one based on knowledge, not hierarchy (<https://www.mckinsey.com/industries/financial-services/our-insights/ings-agile-transformation>). Yet, for many established organizations, there is no driver yet to make that immense change. They start to implement agility with bottom-up solutions or in separate units.

According to a recent European survey with 902 participants (Study Status Quo Agile 2016/17, Komus et al., <http://www.status-quo-agile.net>), only 20 percent of surveyed organizations follow a top-down or purely agile approach. Sixty-eight percent have hybrid or selective approaches for a mix of agile and traditional concepts, and 12 percent stick to waterfall.

From this survey, it seems to be clear that agile approaches to project management are mainly complementing traditional approaches and contributing to hybrid projects. The main driver for using agile in projects is reducing time to market (61 percent), followed by improving quality (47 percent) and reducing risk (41 percent). Seventy-one percent say that it is not possible to work consistently in agile due to the working environment (e.g., fixed budgets and fixed targets).

Agile Approaches Can Help Some Projects

One of the specific problems the organization I worked for faced was to develop a new web-based interface for their customers. Business functions and IT worked together to identify requirements, design a solution, implement and test it. The project failed miserably, as requirements were floating and technology was changing rapidly. So, they decided to try an agile approach using Scrum, and were successfully rolling out product versions every few weeks, getting feedback from customers that transformed into new requirements—and built a sophisticated website over time. They became able to adapt to emerging requirements and changing technology driven by digitization.

This company extended the agile approach to other areas and now has a hybrid approach to managing projects, with about 80 percent of projects still following traditional approaches. This does not mean they are following pure waterfall life cycles, though. Most projects just have a budget limit, three- to-four milestones to achieve over 12 months, a sequence of logical phases to follow and a rough understanding about the scope when they start. Details are developed as progress is made through the phases, like in a rolling-wave planning approach. Contractors deliver predefined work packages according to contractual obligations, which means fixed milestones and committed cost estimations. Integration and testing is done at the end of the project. Customer staff is involved mainly in the testing phase.

In some of these projects, project leaders take a hybrid approach by using agile components such as daily stand-ups, kanban walls, retrospectives and even development sprints.

Competencies for Becoming Agile

As project managers, we are here to make dreams a reality. We must choose the best way to accomplish this and therefore should understand a wide range of options and concepts, including the continuum of life-cycle approaches from predictive to iterative, incremental and agile. The waterfall model is used for a strictly predictive life cycle and is used in different rigor, for example when rolling wave planning is applied or phases are planned as agile scrum sprints. This is an example where a mix of life-cycle models within a single project is applied—in other words, a hybrid project approach. Dr. Boehm's spiral model is an example of an iterative approach and is applicable to high-risk situations.

PMI's research shows that organizations with high agility rely on employing project professionals with the skills to apply a variety of project management approaches (88 percent versus 13 percent of organizations with low agility), establishing the agile project leader as a formal role (77 percent versus 13 percent of organizations with low agility) and fostering peer-to-peer internal training programs (82 percent versus 5 percent).

PMI's Code of Ethics and Professional Conduct is based on the four values of respect, responsibility, honesty and fairness. (<https://www.pmi.org/about/ethics/code>) These values promote the agile mindset through a collaborative team environment and a focus on the contributions of each team member. For example, respect refers to acknowledging every team member's role and participation, responsibility leads to commitments, honesty to openly sharing information, and fairness enables trust within the team. These values also support the values stated in the Agile Manifesto.

The PMI Talent Triangle® structures the skills needed for agile project managers: technical (process) skills and business acumen must be complemented with leadership skills to enable servant leadership, collaboration and openness to change. Project managers who continuously develop these skills will drive cultural change needed by the organization to become more agile (<https://www.pmi.org/learning/training-development/talent-triangle>).

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Thomas Walenta, PMI Fellow, was working as Project and Program Manager for IBM from 1983-2014. Most recently he was responsible for a program encompassing all business of IBM with a global client in the EMEA region, with teams in India, Japan and across Europe. He led the PMI Frankfurt Chapter from 1998 to 2005, increasing membership from 111 to 750 and the annual budget to 100K Euro.

Thomas had a variety of volunteer positions for PMI, among them being final juror of the PMI Project of the Year award, member of the PMI Board nomination committee, auditor for PMI's Registered Education Provider Program, writer/reviewer of PMP Exam questions and significant contributor to PMI's first standards about Program Management and Portfolio Management. He also is a member of GPM, the German IPMA organisation, since 1995.

Thomas served in leadership positions as President of the PMI Frankfurt Chapter 1998-2005, on the PMI Board 2006-2008, on the PMI Ethics Review Committee 2011-2016 and again on the PMI Board for the term 2017-2019.

Being a speaker on global project management events in Tokyo, Moscow, São Paulo and across Europe, Thomas extended his professional network significantly and is regarded as an experienced and skilful advisor and mentor. Since 2002, he gives lectures at the University of Applied Sciences in Darmstadt, Germany. Thomas is also a global advisor for the *PM World Journal*.

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