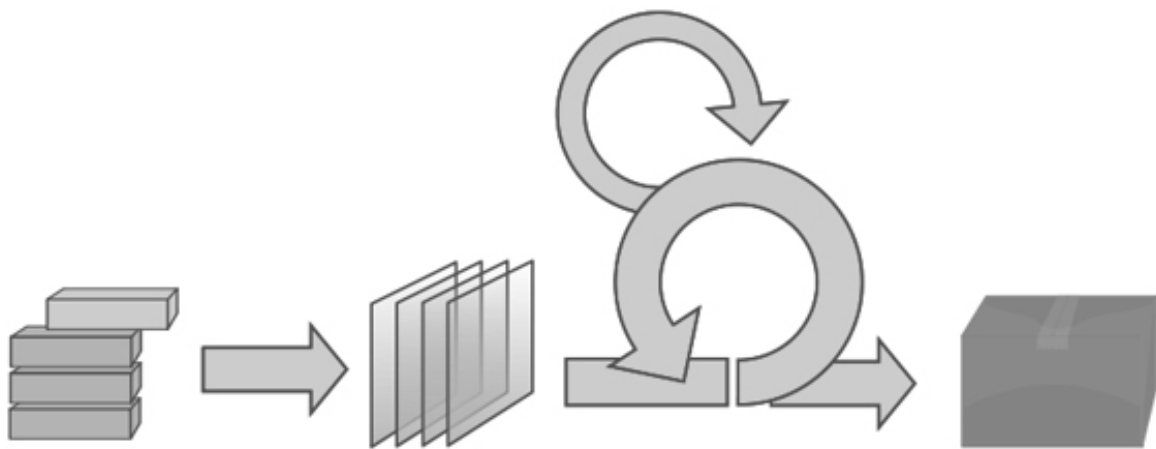


# Agile Project Management Implementation Approach



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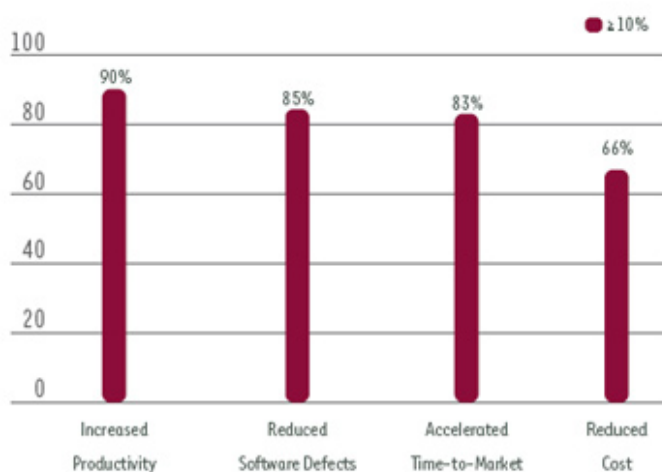
## Objective of this document

During my agile project management assignments with various organizations; small, medium and large enterprises, I have had the opportunity to work with some great teams who really leveraged agile project management as a strategic advantage at the organizational level to gain more business. I could also work with some teams, who just implemented some of the agile project management practices and started claiming that they are also agile. Both benefited from agile project management in varying degrees. The objective of this document is to provide a clear-cut road map to organizations that are planning their agile trek.

## Business case for going Agile

### Agile development is consistently delivering meaningful and measurable business results.

Specific improvements you have actually realized from implementing Agile practices.

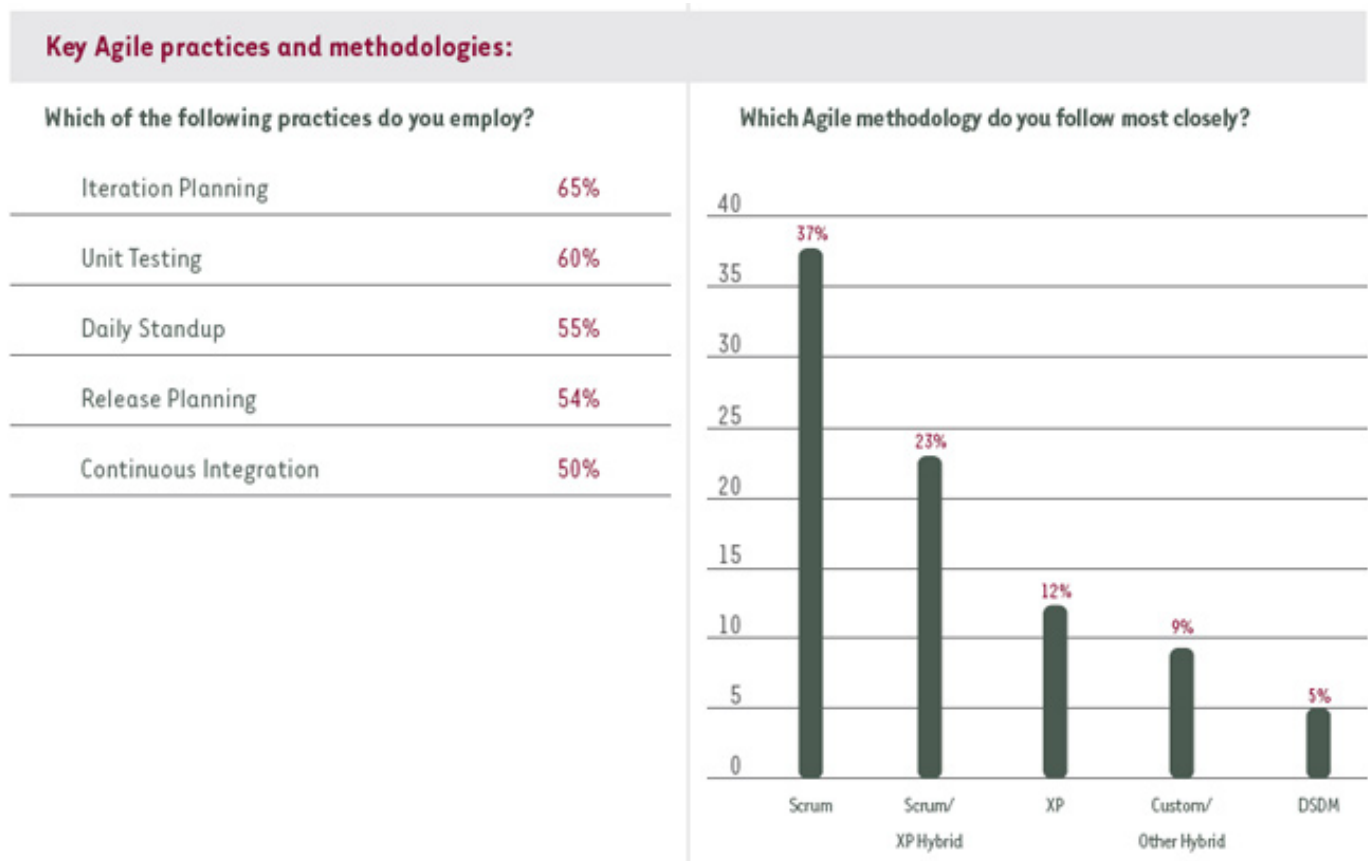


What are the two most important reasons for adopting Agile within your team or organization?

Manage Changing Priorities	30%
Accelerate Time-to-Market	24%
Enhance Software Quality	19%
Increase Productivity	18%
Alignment Between IT and Business Needs	15%
Reduce Project Risk	12%
Improve Project Visibility	12%

The key drivers for adopting agile project were to manage changing priorities and to accelerate time to market. 90% of the organizations reported increased productivity. 85% of the organizations reported reduced software defects. 83% of the organizations reported accelerated time to market and a 66% reported reduced cost.

## Adoption rate of different flavors of agile methodologies



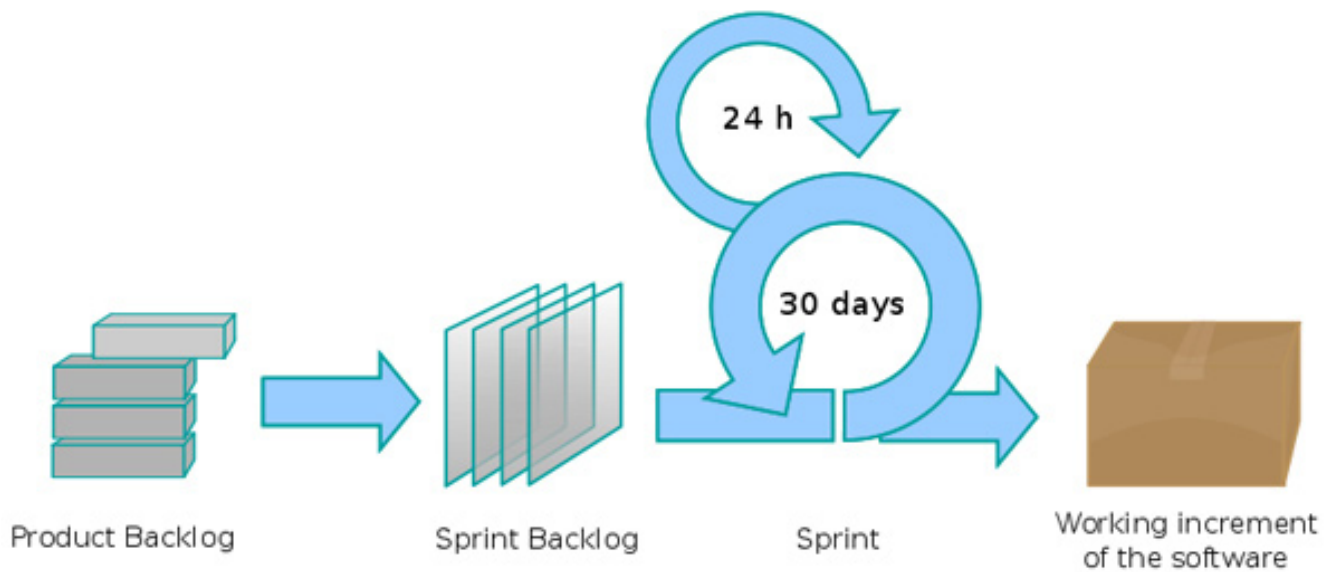
As we can see from the above table, SCRUM, SCRUM/XP hybrid and XP collectively accounts for more than 80% of the agile implementations. SCRUM focuses on the agile project management practices where as XP focuses on the engineering practices. My recommendation is to start with SCRUM (focus on the management practices) and then adopt the engineering practices from XP.

### About SCRUM

SCRUM appears simple, yet has practices that deeply influence the work experience and that capture key adaptive and agile qualities. Scrum's distinctive emphasis among the methods is its strong promotion of self directed teams, daily team measurement and avoidance of prescriptive processes. SCRUM practices are founded on the agile principles (see annexure). Some of the key agile practices include;

- Self directed and self organizing teams
- No external addition of work to an iteration, once chosen
- Daily stand up meetings, with special questions
- 30 calendar day iterations
- Demo to external stakeholders at the end of each iteration
- For each iteration, client-driven, adaptive planning

## The SCRUM process overview



Scrum hangs all of its practices on an iterative, incremental process skeleton. Scrum's skeleton is shown in the diagram above. The lower circle represents an iteration of development activities that occur, one after another. The output of each iteration is an increment of the product. The upper circle represents the daily inspection that occurs during the iteration, in which the individual team members meet to inspect each other's activities and make appropriate adaptations. Driving the iteration is a list of requirements. This cycle repeats until the project is no longer funded.

The skeleton operates this way: At the start of iteration, the team reviews what it must do. It then selects what it believes it can turn into an increment of potentially shippable functionality by the end of the iteration. The team is then left alone to make its best effort for the rest of the iteration. At the end of the iteration, the team presents the increment of functionality it built so that the stakeholders can inspect the functionality and timely adaptations to the project can be made.

## The key SCRUM glossary

Product backlog	All features of the product
Release backlog	A subset of the product backlog, targeted at the next production quality release
Sprint backlog	Tasks for the iteration. Granularity 4-16 hours
Sprint	Iteration of 30 days duration
Daily scrum meeting	Daily stand up meetings
Team introspections	Reflect and improve upon the learning
The product owner	The product owner is responsible for representing the interests of every one with a stake in the project and it's resulting system.
Teams	The team is responsible for developing functionality
Scrum Master	The Scrum Master is responsible for the scrum process, for teaching scrum to everyone involved in the project, for implementing scrum so that it fits within an organization's culture and still deliver the expected benefits, and for ensuring that every one follows scrum rules and practices

## Cultural aspects of moving towards agile

While implementing agile, one will have to unlearn many of the conventional management practices in order to accept the culture imbued on the foundations agile values and principles.

### *Values*

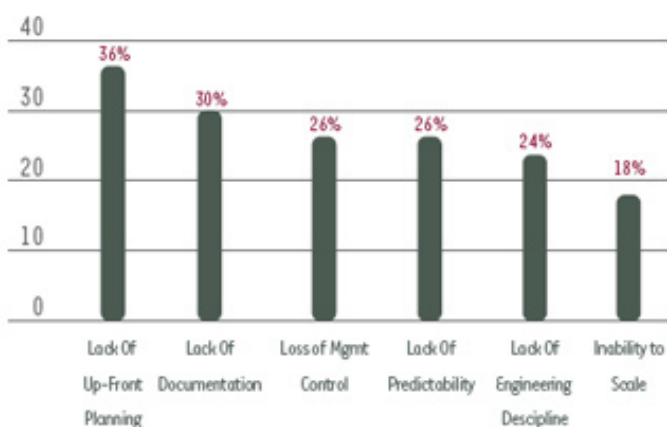
- Commitment – Be willing to commit to a goal. Scrum provides people all the authority they need to meet their commitments.
- Focus – Do your job. Focus all of your efforts and skills on doing the work that you have committed to doing. Don't worry about anything else.
- Openness – Keep everything about the project visible to every one
- Respect – Individuals are shaped by their background, and their experiences. It is important to respect the different people who comprise a team.
- Courage – Have the courage to commit, to act, to be open, and to expect respect.

## The Agile Principles

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter time scale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development.
9. The sponsors, developers and users should be able to maintain a constant pace indefinitely.
10. Continuous attention to technical excellence and good design enhances agility.
11. Simplicity – the art of maximizing the amount of work not done- is essential
12. The best architectures, requirements and designs emerge from self organizing teams.
13. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts it's behavior accordingly.

### There are challenges for the agile community to address in order to expand industry success.

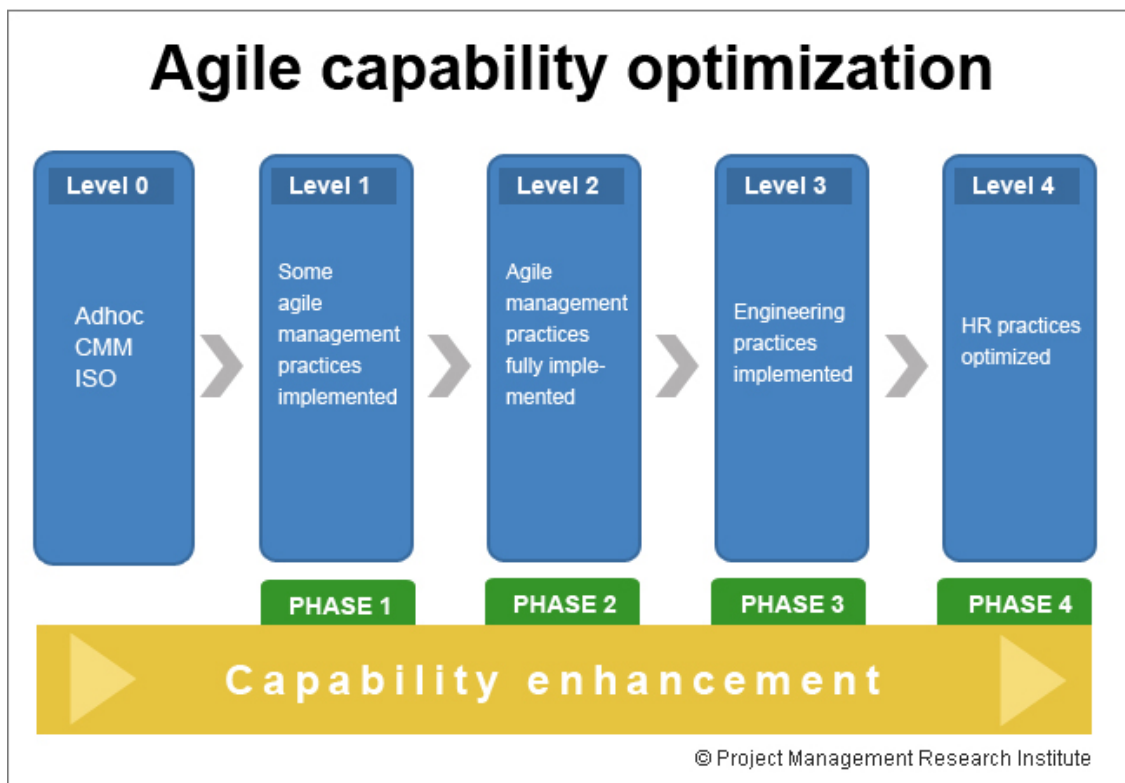
What are / were the organization's greatest concerns regarding the adoption of Agile development?



What are the barriers to further adoption of Agile in your current organization?

General resistance to change	36%
Personnel with Agile experience	34%
Organization boundaries	25%
Management support	24%
Customer collaboration	21%

Without a focused, time boxed road map for the agile implementation, the agile implementation may not provide the real strategic business advantage to the organization. Based on my experiences with agile teams from various organizations, I have coined the agile maturity model for implementing agile within organizations. The only objective of this staged approach is to provide a road map for organizations to have the right and sustainable agile implementations.



### Level - 0

An aspiring organization, which is very new to agile project management practices. Most of the work happens in an ad hoc manner, or are based on waterfall, CMM, ISO etc.

### Level-1 (Agile project management partial)

General awareness on the right agile management methodology is imparted to some teams, and they have started implementing tailored agile in their respective teams. Mindset still remains waterfall. Work allocation and tracking happens as in the conventional project management teams. Still they get some benefits.

### Level-2 (Agile project management fully implemented)

At this stage, all the key agile project management practices given below are implemented.

- Product backlog

- User stories and estimation using story points
- Estimation using poker
- Acceptance test cases are written and documented before the sprint
- Sprint planning
- Work volunteering
- Daily stand up meetings
- Tracking Sprint board and burn down charts
- Sprint review meetings
- Lessons learned exercises
- Velocity calculations
- Role clarities scrum master, product owner, team members
- Tool usage for multi location collaboration

### **Level-3 (Agile engineering practices implemented)**

At this stage the core engineering practices given below are adopted;

- Adherence to coding standards
- Create the unit test first
- Pair programming
- Integrate code at a time
- Integrate often
- Acceptance test automation

### **Level -4 (Agile HR practice implemented)**

- Alignment of the HR practices to the agile values like commitment, focus, openness, respect and courage.
- 360 degree appraisal systems

## The engagement model

Since every organization is unique, it is very difficult to define a global model, which suits every organization. The engagement starts with an assessment of the current situation.

Step	Activity	Output
1	<ul style="list-style-type: none"> <li>This step is applicable for organizations which are new to Agile.</li> <li>Orientation to the core team on the right agile project management practices (max 20 members).</li> <li>Action planning for immediate implementation, within a month.</li> </ul>	<ul style="list-style-type: none"> <li>Training delivered</li> <li>Teams for implementation identified</li> <li>Senior management commitment demonstration</li> <li>Hand holding during the initial phases of implementation</li> </ul>
2	<ul style="list-style-type: none"> <li>Orientation to the key practices of level-2</li> <li>Assessment of the current level</li> <li>Action planning for immediate implementation, within a month.</li> </ul>	<ul style="list-style-type: none"> <li>Assessment report</li> <li>Training delivered</li> <li>Teams for implementation identified</li> <li>Senior management commitment demonstration</li> <li>Hand holding during the initial phases of implementation</li> </ul>
3	<ul style="list-style-type: none"> <li>Orientation to the key practices of level-3</li> <li>Assessment of the current level</li> <li>Action planning for immediate implementation, within a month.</li> </ul>	<ul style="list-style-type: none"> <li>Assessment report</li> <li>Training delivered</li> <li>Teams for implementation identified</li> <li>Senior management commitment demonstration</li> <li>Onsite expert consulting for implementing the engineering practices (duration as required)</li> </ul>
4	<ul style="list-style-type: none"> <li>Orientation to the key practices of level-4</li> <li>Assessment of the current level</li> <li>Action planning for immediate implementation within a month</li> </ul>	<ul style="list-style-type: none"> <li>Senior management commitment demonstration</li> <li>Onsite expert consulting for implementing the HR practices (duration as required)</li> </ul>

If your organization is planning to go for agile, or if you are already into agile and want to fine tune it for further benefits, I am keen to get associated with you in your agile trek. Please feel free to contact me any time.

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**Abrachan Pudusserry** is a highly acclaimed Speaker, Advisor and Author of project management, quality management and software engineering. He has his B.E in electrical engineering from MSRIT, Bangalore and M.S in Quality Management from BITS Pilani. During his 20 years of professional work, he served organizations such as Novell, HCL, FEC and The Project Management Research Institute. Abrachan has coached around 2000 + project managers from leading organizations, worldwide.

The PMdistilled ([www.pmdistilled.com](http://www.pmdistilled.com)) project management workshops architected by him, is being delivered successfully in multiple countries including India, Dubai, Bahrain, Abu Dhabi, Muscat, Malaysia and Singapore.

Apart from these workshops, he delivers customized programs and consulting services catering to the specific needs of the organizations and works along with project teams in implementing project management and quality management best practices covering Predictive Project management (PMBOK, PRINCE2), Adaptive project management (Agile methodologies with emphasis on SCRUM) and IT project management. He has conducted customized project management workshops for leading organizations like;

- 3i infotech
- Accenture, Mumbai
- Amdocs, Pune
- AOL, Bangalore
- Birlasoft, Noida
- Bluestar, Bangalore
- Broadcom, Bangalore
- Capco, Bangalore
- CDAC Alcatel, Chennai
- DAMAC, Dubai
- EMC, Bangalore
- Everett, Bangalore
- Health Assyst
- HP, Bangalore
- HP, Chennai
- IBS, Trivandrum
- Impiger Tech, Chennai
- Infotech, Hyderabad
- L.G, Bangalore
- Oracle, Bangalore
- Oracle, Hyderabad
- PSI Data Systems
- Razorgator
- Sasken, Bangalore
- Sobha Renaissance IT, Bangalore
- Societe Generale
- Sonata, Chennai
- Tejari, Dubai
- Tejus Networks, Bangalore
- Tesco
- Torry Harris, Bangalore
- Tyco, Bangalore
- Union Christian College, Kerala
- Vmoksha
- Zerone Consulting, Kochi

He is a CSM (Certified Scrum Master), PRINCE2 practitioner, PMP certified, Certified quality analyst. He is the founder director of the Project Management research Institute ([www.pmrinstitute.com](http://www.pmrinstitute.com)).

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