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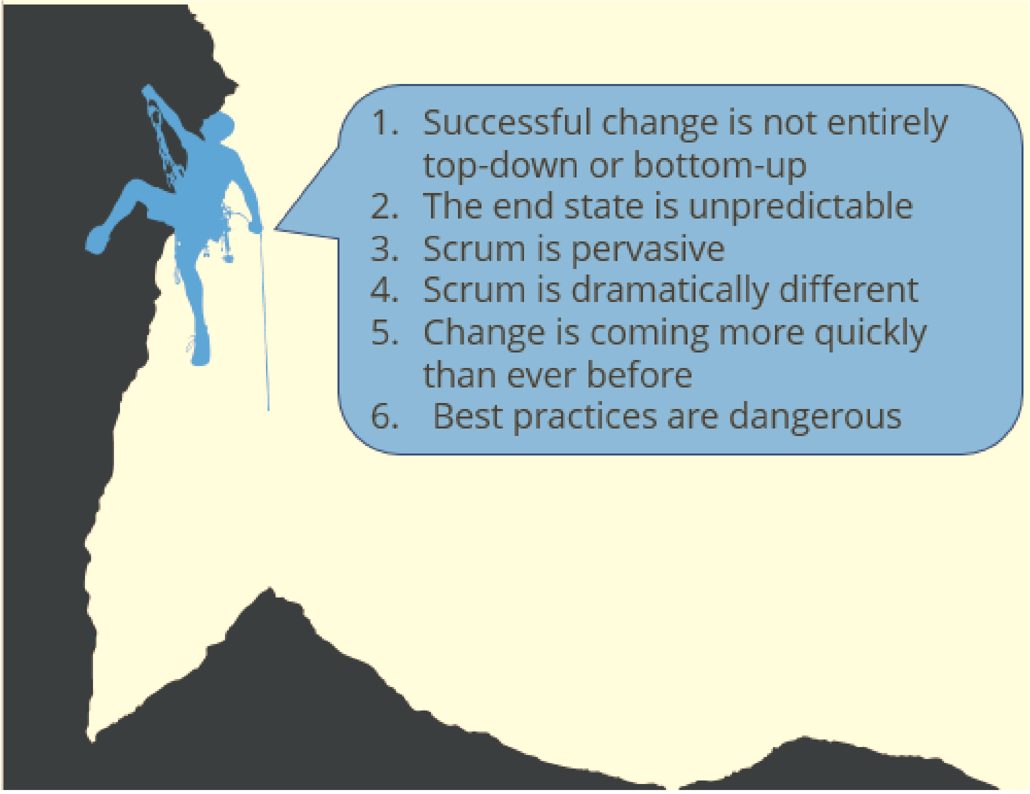
Successful Scrum Adoption

Getting Started with Agile

- Organizations are seeing the benefits of transitioning from Waterfall and other methods of Software Development to Agile.
- In this section, we will first explore transition.

Factors that make Transition to Agile—Hard

- When an organization wants to move from other methods to Agile software development, changes to be introduced will create resistance, making the transition difficult.
- The following factors make transitioning to Agile difficult for organizations.


1. Successful change is not entirely top-down or bottom-up
2. The end state is unpredictable
3. Scrum is pervasive
4. Scrum is dramatically different
5. Change is coming more quickly than ever before
6. Best practices are dangerous

Successful change is not entirely top-down or bottom-up

- Agile transition is an organizational change.
- It can't be fully top-down or bottom-up.
- Top-down approach:
  - A powerful leader (for example, a CEO) comes up with a powerful vision for the future, and the organization is unified by that vision and naturally follows that leader.
  - In this approach, bottom-level managers and resources will be ***executing and involved*** in the transition. They may do this reluctantly as they are following the powerful leader.

- Bottom-up approach:
    - An individual (for example, a Project Manager) or a team (for example, a Product Development Project Team) or a specific business unit (for example, Asia Development Centre) may initiate the transition and try to play it safe under the corporate radar.
    - Without top-level management support, this approach may have limited success only at team level.
- Each approach has its own advantages and disadvantages, as given above.

Most successful changes must include both top-down and bottom-up change.

Unpredictable end state

- The end state depicts where the organization ***would be in future*** once the transition is complete.
- Organizations use vision to align and motivate employees from current state to future state.
- From current state to future state, there would be gaps that need to be filled in. Typically, organizations identify gaps and see how they can overcome these gaps.
- There are two almost impossible hurdles that organizations need to cross to transition from current state to future state:
    - Knowing where exactly the organization wants to end up
    - Knowing the exact steps to go from current state to future state

Organizations can use the "provoke and try" approach.
In this approach, organizations try a few activities to reach an intermediate state, evaluate the results, and then do more of it if required.

Scrum is pervasive

- Introducing a change where it doesn't affect ***everything*** that a person is doing is easy.
- When a developer transitions to Agile from earlier Non-agile methodologies, he/she must:
    - Work on smaller product increments at a time
    - Write a few automated tests

  - Use practices such as Pair programming, test-driven development, etc.
- These above changes pervade everything in a developer's typical work day. Therefore, developers might show resistance to transition toward Agile.
- Becoming Agile impacts the entire organization, not just development teams. Due to automated tests and frequent releases, the operations, sales, and marketing teams might have to work differently than they were working earlier. This creates a huge resistance to change.

As more groups or departments are affected by the move to Agile, there are more chances of resistance, misunderstandings, and misalignments—making transition harder.

Scrum is dramatically different

- Working with Scrum involves asking people to work in unfamiliar ways that contrast their experience, training, and learning.
- The following table specifies a few changes from Non-agile to Agile ways of working.

	Non-agile	Agile
Tasks	Mostly assigned by a PM	Team members pick up the task themselves
Requirements	Extensive documentation such as Software Requirement specification	Limited documentation with a lot of emphasis on face-to-face communication and collaboration
Testing	Mostly done by dedicated teams	Developer must do more testing
Release & Delivery	Done toward the end of the project, so pressure doesn't build up from beginning	Frequent and early releases build pressure from very early in the project

- Because of these changes in ways of working, developers are often hesitant to change to Agile ways of working.

Past learning, experience, and ways of working that contrast with Agile ways of working make developers hesitant and resistant to change.

Change is coming more quickly than ever before

- Too much change in a very short period of time creates disorientation in people. This is called ***future shock.***
- Teams are asked to do more with less people. Outsourced and distributed teams add to this pressure.
- The pervasive nature of frequent and quick changes, early releases, new ways of working, new tools etc. can easily push people into future shock.

Changes to how people work and interact—introduced in very short times—create a higher risk of triggering future shock.

Best Practices are dangerous

- Most of the organizations would have a few best practices that they have derived though their experience and expertise over the years.
- Generally, Project Management Offices or Centers of Excellence in an organization thrive on establishing and enforcing these best practices.
- In Agile ways of working with Scrum, collating and using best practices can be dangerous because it limits the focus on improvement.

When best practices are followed,
the motivation for improvement will be gone.

If transition is hard, then why transition? Because the transition effort is worth it.

- As outlined in the previous section, six factors make transition hard.
- You may think, why do organizations try to transition if it is so hard?
- Well, here are the benefits of the transition effort. Let us explore each one in detail.

1. Higher productivity and lower costs
2. Improved employee engagement and job satisfaction
3. Faster time to market
4. Higher quality
5. Improved stakeholder satisfaction
6. What we've been doing no longer works

Higher Productivity and Lower costs

- Agile teams offer higher productivity and lower costs.
- Though it is difficult to define exactly what productivity is and to measure it, the following published studies support this.
    - QSM Associates survey (http://qsma.com/the-agile-impact/) indicates that Agile projects deliver 75% fewer defects and 30% quicker schedules, that is, deliveries. This report is available at: http://image.zenn.net/REPLACE/CLIENT/1000047/1000150/application/pdf/MahColumbusAgilearticleinProjectsatWork.pdf
    - Version One (https://www.versionone.com/)—an electronic Agile tool company —has been publishing “The Annual State of Agile” report every year for the last 11 years. You can access the latest report at: http://stateofagile.versionone.com/ Click on the “Read Now” button.

Improved Employee Engagement and Satisfaction

- Industry studies and surveys indicate that employees enjoy their jobs more when working on Agile Projects.
    - In salesforce.com (www.salesforce.com) 86% of employees said they were having a good time in the company—after 15 months on Agile projects—when compared to 40% before Agile adoption.
    - Version One (https://www.versionone.com) in its industry survey reported that 74% of employees indicated that their morale has improved.

- Employees enjoy Agile projects due to the sustainable pace maintained by Agile projects. This is evident from the following study:
    - Chris Mann and Frank Maurer of the University of Calgary studied the amount of overtime worked by a team for a year before and after Agile was implemented. They found that before implementing Agile practices, the team members worked an average of 19% overtime. After adopting an Agile process, it dropped by nearly two-thirds, to an average of 7% overtime.

Faster Time to Market

- Due to the practice of frequent and early releases, Agile teams release their products more quickly than Non-agile project teams.
    - Version One study (https://www.versionone.com) reported that 64% of participants agreed that their time to market improved.
    - QSM Associates study (http://qsma.com/the-agile-impact/) concluded that Agile projects had 37% faster time to market by comparing 26 Agile projects to 7500 Non-agile projects.
- Agile teams have faster time to market due to:
    - Higher productivity—teams produce more functionality quickly
    - Frequent incremental delivery—each sprint delivers potentially shippable product increment

Higher Quality

- Agile teams deliver higher quality software because they work at a sustainable pace and do not get sloppy.
- A few engineering practices such as pair programming, refactoring, and automated testing also help the teams to deliver higher quality software regularly.

Improved Stakeholder Satisfaction

- One primary reason for improved stakeholder satisfaction in Agile projects is that Agile accommodates the shifting priorities in today's fast-paced dynamic business scenario.
- Stakeholders also learn the impact of changes in an Agile project more quickly than in Non-agile projects.
- In Version One survey, the following insights were gained toward improved stakeholder satisfaction on Agile projects:
    - Better alignment between technology and business
    - Reduced project risk
    - Improved project visibility

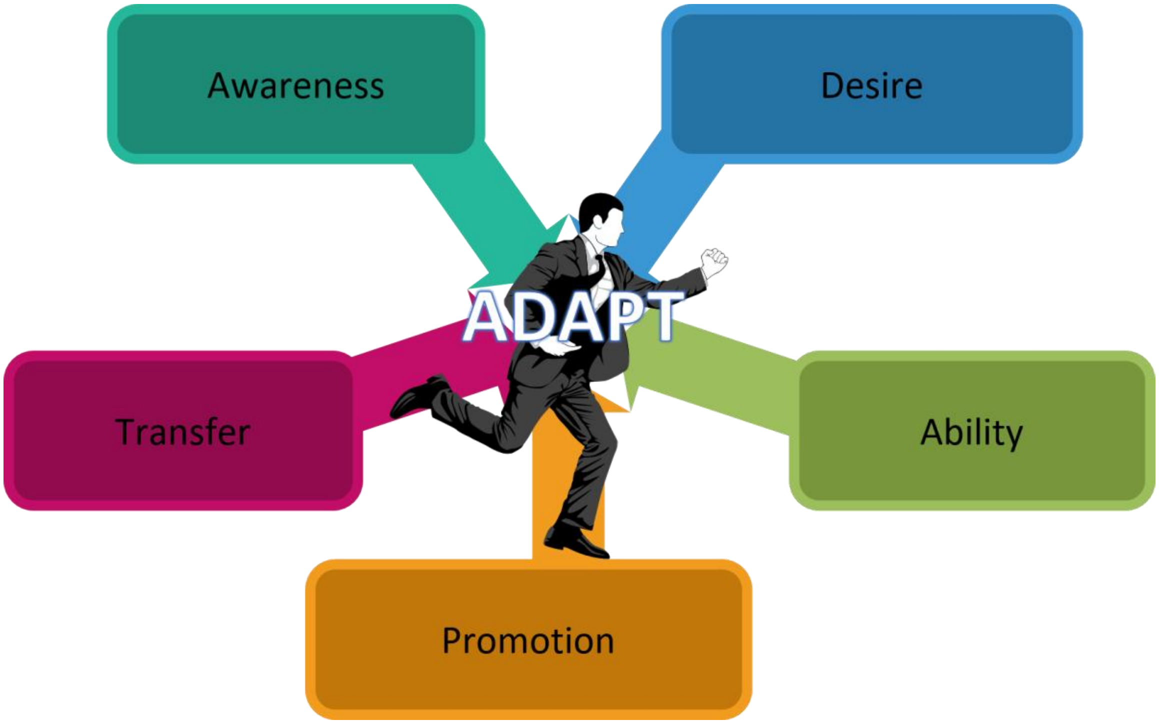
  - Better ability to manage changing priorities

What We've Been Doing No Longer Works

- In a few organizations and in a few projects, the current methodologies followed suddenly seem not to work.
- A few teams, unfortunately, may try to do more of what they were doing already, hoping that things may improve.
- In such situations, instead of relying on old practices that no longer seem to work, teams can try the Agile approach with Scrum.

ADAPTing to Scrum

- The following five activities are necessary for successful and lasting Scrum adoption in an organization.



- Promotion and Transfer repeat throughout this cycle.
- These activities are to be implemented at multiple levels:
  - Organization level
  - Individual level
  - Team level
  - Practice level

Awareness

- The first challenge for any organization is to become aware that the current processes they are following are not delivering the desired results.
- While companies would like to maintain Status Quo (of current situation), they might be in the ***Valley of Death*** situation, that is, revenue from current product would decline drastically and quickly before the increase in revenue from the new product kicks in.

Reasons for lack of awareness

A lack of exposure to the big picture

- The need for change might not be directly visible to everyone.

- Only those who see the decline in sales might become aware that the current situation must change, that is, the status quo must be disrupted.

A refusal to see what is right in front of us

- These managers and leaders know that some things are not working, but they would not want the change as they have the mindset that problems are temporary.

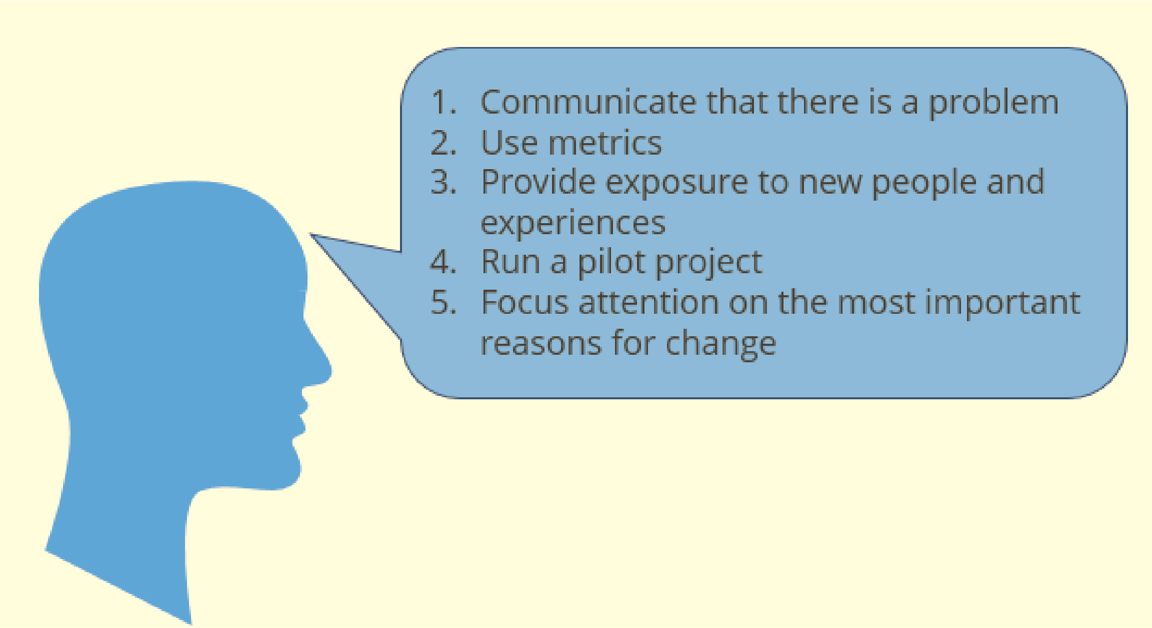
Confusing motion with progress

- Meetings, regular status reports, governance meetings, and the frenzy of activities that happen during projects may lead the stakeholders to think that there is a lot of progress being made in the projects.
- Under the hood, things may be worse than the image projected.

Listening to our own propaganda

- Often, those who initiate change may not project the right picture even after knowing that things have become worse. Instead, they may create propaganda about success of the change by using false projects and may deceive stakeholders.
- Reports or project reviews by internal teams may always project that the projects are really doing well.

Tools for developing awareness



1. Communicate that there is a problem
2. Use metrics
3. Provide exposure to new people and experiences
4. Run a pilot project
5. Focus attention on the most important reasons for change

Communicate that ***there is*** *a problem*

- Organizations must realize that their projects are facing issues such as employees working overtime, miscommunication, and deliverables not meeting expectations and not delivered on time.
- When Projects are reviewed, instead of looking at the data presented, the managers and leaders must try to get to the bottom of the data and understand that there is a problem.

Use metrics

- A few metrics clearly convey that change is necessary. For example:
  - Employee attrition – A lot of people leaving the organization indicates that there could be problems such as routine work, not being recognized, stressful projects, a lot of overtime, etc.
  - Employee Satisfaction Survey – Declining trend in job satisfaction
  - Declining revenue per employee

Provide exposure to new people and experiences

- Throughout the year, there are opportunities for exhibitions, conferences, trade shows, etc. Team members can attend these to discover innovative ideas.
- Hire people with diverse backgrounds and exposure. This will infuse new thoughts into current teams.

Run a pilot project

- It is hard for people to argue and disagree when project success is demonstrated.
- The organization can run a pilot project and use its success to gain stakeholders' confidence.

Focus attention on the most important reasons for change

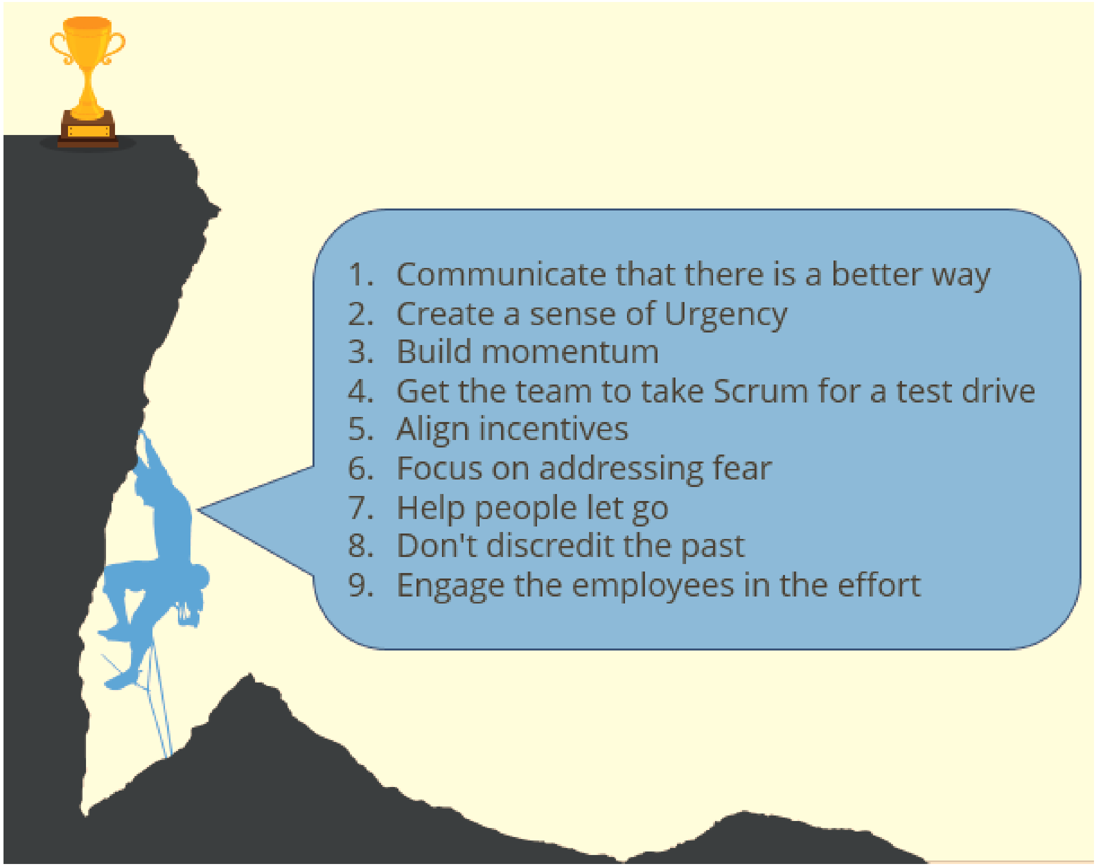
- Any organization could get data on the following common project issues:
  - Deliverable often does not meet customer expectations
  - Projects run behind schedule most of the time
  - Quality is poor consistently
  - Developer morale is low
  - Project costs are increasing
- From this list of reasons for change, identify two or three top reasons that are causing the problems. After identifying the critical ones, organizations can focus more attention on those to resolve them and introduce change.

Desire

- Organizations or teams might become aware of becoming Agile, but that alone is not enough. Organizations or teams must also have the desire to become Agile.

Tools for increasing Desire

- Increasing Desire is much harder when compared to creating awareness.
- Let us explore a few tools for increasing Desire toward agility.


1. Communicate that there is a better way
2. Create a sense of Urgency
3. Build momentum
4. Get the team to take Scrum for a test drive
5. Align incentives
6. Focus on addressing fear
7. Help people let go
8. Don't discredit the past
9. Engage the employees in the effort

Communicate that there is a better way

- Communication is very important both for creating Awareness and increasing Desire.
- Awareness communications focus on what the problems are, whereas Desire communications throw a spotlight on how Scrum can help address those problems.

Create a sense of urgency

- A few organizations or teams can increase the Desire to adopt Scrum by turning up the heat, that is, by creating a sense of urgency.

- By using a sense of urgency, these organizations or teams make it clear to all involved that status quo can no longer be tolerated as it is. Change, that is, Agile adoption is inevitable.

Build momentum

- In an organization, not all might have the required Desire to adopt scrum.
- Instead of focusing on those who are opposed to scrum, work with those who are ready to embrace and are enthusiastic about adopting scrum.
- With each success, build an unstoppable momentum that may make adoption of scrum inevitable.

Get the team to take Scrum for a test drive

- You might have heard of trial products or “try before you buy” options. This option is similar to that.
- Have one team use Scrum for a period of 3 months.
- In this 3-month test drive period, the team might do 1 or 2 sprints. By doing a thorough retrospective with the entire team, decide how to move forward.
- At the end of 3 months, this test drive period can be extended, if required.

Align incentives

- It is a generic practice in any organization to offer rewards and incentives to ***individuals*** based on a few criteria, such as their performance in a project.
- Please keep in mind that Agile works with teams and not individuals. Therefore, existing incentive structure in an organization—if it is individual-centric—***must be changed toward team performance*** incentives.

Focus on addressing fear

- Due to past experiences with Non-agile projects, Product Owners may prefer dedicated requirement gathering upfront in an Agile project.
- Similarly, architects may favor upfront design instead of design that evolves during the Project.
- When dealing with these individuals who may express fear, look for opportunities to address those fears.

Help people let go

- When people are transitioning to Agile from Non-agile practices, there is a possibility of loss and grief. These losses can be personal (for example, Agile doesn’t have PM role. So, existing PMs lose control over the teams). Allow people to grieve, listen, and accept their losses.

Don’t discredit the past

- During transition, there is a possibility that existing practices followed in the organization might be looked down upon or made fun of.
- Acknowledge that the organization has come so far due to those practices before moving toward Scrum and Agile.
- Don’t downplay or disrespect past methodologies.

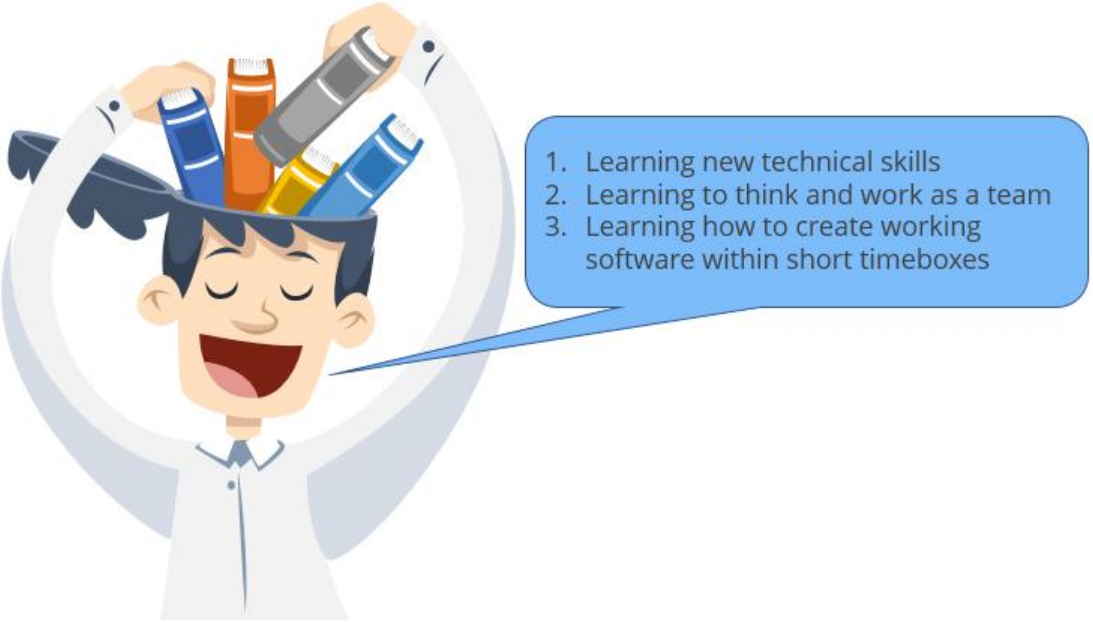
Engage the employees in the effort

- You may find a person who is an opinion leader (i.e. his/her opinions are respected by team members) in a team.
- Associate with these opinion leaders. The infectious enthusiasm from these opinion leaders can rapidly spread to others.
- There may be few skeptics. Don’t ignore them. Involve them also and find out what they would like to see, experience, or know before working on Scrum. Address those issues accordingly.

Ability

- Awareness and Desire to become Agile is useless if there is no Ability.
- During transition to Agile, Scrum teams not only have to learn new skills but also unlearn a few old ones.

Challenges faced by Scrum teams when developing abilities



1. Learning new technical skills
2. Learning to think and work as a team
3. Learning how to create working software within short timeboxes

Learning new technical skills

- Team members must learn new technical skills:

- Developers must learn how to work on short requirements in the form of User Stories
- Architects must learn how to evolve the design over the period of time instead of insisting on upfront design
- Testers must learn how to test a system with limited documentation

Learning to think and work as a team

- Team members might have worked in the past with an individual contribution mindset, that is, the focus is more on “What will I work on today” rather than “What will our team work on today.” There may have been less face-to-face communication and interaction.
- In Scrum, the team is one and is expected to collaborate and behave as one. So, the team members need to learn to work as a team and collaborate with team members with a shared responsibility mindset.

Learning how to create working software within short timeboxes

- Team members new to Agile face a bigger challenge with short focused Sprints.
- Team members might have been habituated to working alone and developing greater functionality and release toward the end of the project.
- They must learn to eliminate waste, must work closely with other developers, must perform more rigorous testing, and so on.

Tools for developing Ability

1. Provide coaching and training
2. Hold individuals accountable
3. Share information
4. Set reasonable targets
5. Just do it

Providing coaching and training

- For team members who worked on Non-agile methods, necessary Scrum coaching and training must be provided when transitioning to Agile.
- Most organizations, as soon as they start the transition toward agility with Scrum, identify a few relevant resources and provide them with necessary training.
- This training is for both Scrum Masters and Product Owners.

Hold individuals accountable

- Employees must be made aware that they will be held accountable for applying those new skills because it is the organization that pays for them to acquire those skills.

Share information

- When working initially on Agile projects, team members will be flooded with additional information and challenges.
- Organizations should provide opportunities for team members to share information and problems.
- One approach for this information sharing is ***cross-pollinating teams***, that is, allowing one team member to attend another team's daily scrum or sprint review.
- Another approach is to use corporate intranet, blogs, wikis, posters, and communication.
- Further, team members can share their knowledge and information by offering short training to others.

Set reasonable targets

- Organizations might set aggressive targets for team members with the belief that Agile delivers working software at short intervals frequently. These aggressive targets might cause team burndown and other issues presented earlier.
- Teams should be allowed to select realistic and actionable targets by themselves. Organizations can help teams to start with confidence.

Just do it

- When all the answers are not known at the beginning, most teams may stall, that is, stop doing what they were supposed to do.
- Avoid this and encourage the teams to start practicing Agile and to develop the ability to do something.

Promotion

- Remember that Promotion is done throughout the ADAPT cycle.
- There are three main goals of Promotion:
  1. Lay the groundwork for the next phase of ADAPT Cycle.
  2. Reinforce Agile behavior of existing teams by spreading the news of what the teams have achieved
  3. Create awareness and interest among those outside the Agile adoption teams
- Please avoid these common mistakes when promoting Scrum:
  - Do not do it like a marketing campaign
  - Do not name your transition effort (for example, “Be Agile” as the name for Agile transition effort)

Tools for promoting Scrum

1. Publicize the success stories
2. Host an Agile safari
3. Attract attention and interest

Publicize the success stories

- Communication plays a key role throughout ADAPT cycle, and more prominently during Promotion.
- It is very important to broadcast the success stories of early adopters of Scrum.
- One fantastic way to communicate and publicize success story is to ask the team to present an internal experience report—their experiences with Scrum and the success of using Scrum—to those who are unfamiliar with scrum.
- Teams can also present their early metrics to back up their presentation with credible data.

Host an Agile safari

- Organizations can arrange an ***Agile safari*—**An opportunity for team members working on Non-agile projects to go on a safari, that is, to work with an Agile team for a couple of weeks to experience Agile first hand.

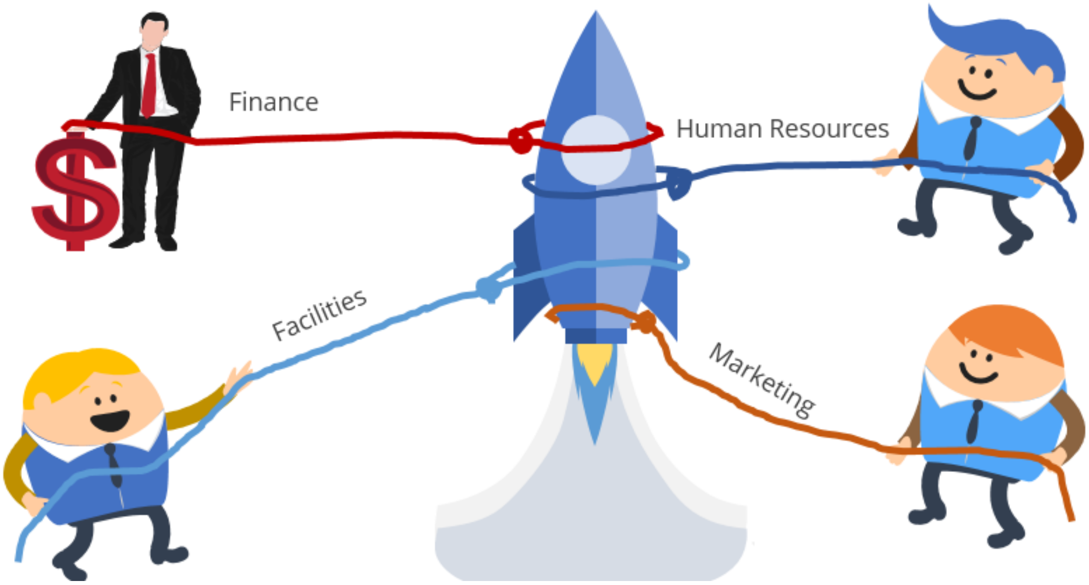
Attract attention and interest

- The more often team members hear, speak, and experience Scrum, the easier Agile adoption becomes.
- Holding open house sessions, public display of information radiators, and so on help to attract attention and gain interest.

Transfer

- Remember that Transfer is repeated throughout ADAPT Cycle along with Promotion.
- If only the Development teams embrace Agile and rest of the organizational functions, such as Human Resources, Marketing and Sales, etc., follow their old practices, Agile transformation will become difficult.
- ***Organizational Gravity*** from these departments, that is, Human Resources, Marketing and Sales, etc., will stall and kill transition efforts toward Agile.

Sources of Organizational Gravity



- These are the groups that must be focused during the Transfer part of ADAPT cycle.
- These departments most likely possess a lot of organizational gravity.

Human Resources

- Scrum Development teams and the Human Resources department clash in many ways.
- Most organizations are likely to have policies that might be against the promotion of Scrum, for example, periodic assessment of top performers in teams might undermine other team members and ultimately affect team work.
- Also, review processes might look at individual contributions rather than team contribution.

Facilities

- The facilities department may restrict the usage of office walls and structures for public display of information radiators, index cards, burndown charts, etc.
- Moreover, the facilities department might object to team seating, such as abandoning cubicles.

Marketing

- In most organizations, the marketing department is considered much more powerful than the development teams.
- Due to customer facing role and power available, marketing teams may commit to deadlines without consulting development teams. Also, they may offer unrealistic commitments on product features and quality just to get the project.
- Scrum teams can work with marketing teams and educate them about the transparency provided by Scrum and the benefits of frequent and early releases.

Finance

- The finance department interacts with a Scrum team primarily in these two ways:
    - Forecasting project schedules and budgets.
        - They may want more accurate and precise forecasting and budget, but they must be educated that high accuracy is not possible and that these efforts take time.
    - Tracking hours, that is, resource utilization and reporting
        - Finance departments are habituated to getting resource utilization information at hour level. They bill customers on the basis of this information.
        - In Agile projects, resource tracking at hour level is usually not done.