Agile 101 For Organizations

What you need to understand about introducing a Bi-Modal and Agile approach into your work environment
• Agile vs Waterfall
• Is Agile right for your organization?
• The Agile process
Agile Project Management

- A style of project management that focuses on early delivery of business value, speed to market, continuous improvement of the project’s product and processes, scope flexibility, team input, and delivering well-tested products that reflect customer needs.
• Advantages of Agile
  – Easy to change
  – Quick iteration
  – Working product soon

• Disadvantages
  – Needs a good PM (scrum master)
  – Higher demand on Scrum Master time
  – Initial project must have a good plan

• When to use
  – Rapid production is important
  – Change is likely
  – Skilled developers who can adapt
  – Unclear picture of final product
• Waterfall Model
  – A sequential design process, used in infrastructure projects and software development, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of requirements, design, development, integration, testing, and delivering.
• Advantages of Waterfall
  – Documentation
  – Good understanding of scope, cost, and schedule

• Disadvantages
  – Heavily dependent on requirements
  – Highly resistant to change
  – Late (in process) testing

• When to use
  – Clear picture of scope and end design
  – Minimal change is desired
  – When speed is not crucial
The Bimodal Approach

- **Mode 1** (Tech Services)
  - Systems Of Record
  - Change
  - Governance

- **Mode 2** (Web/App Dev)
  - Systems Of Innovation
  - Change
  - Governance

<table>
<thead>
<tr>
<th>Mode 1</th>
<th>Goal</th>
<th>Mode 2</th>
<th>Agility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>Value</td>
<td>Price for performance</td>
<td>Revenue, brand, customer experience</td>
</tr>
<tr>
<td>Waterfall, V-Model, high-ceremony IID</td>
<td>Approach</td>
<td>Application</td>
<td>Agile, Kanban, low-ceremony IID</td>
</tr>
<tr>
<td>Plan-driven, approval-based</td>
<td>Governance</td>
<td>Empirical, continuous process-based</td>
<td></td>
</tr>
<tr>
<td>Enterprise suppliers, long-term deals</td>
<td>Sourcing</td>
<td>Small, new vendors, short-term deals</td>
<td></td>
</tr>
<tr>
<td>Good at conventional process, projects</td>
<td>Talent</td>
<td>Good at new and uncertain projects</td>
<td></td>
</tr>
<tr>
<td>IT-centric, removed from customer</td>
<td>Culture</td>
<td>Business-centric, close to customer</td>
<td></td>
</tr>
<tr>
<td>Long (months)</td>
<td>Cycle Times</td>
<td>Short (days, weeks)</td>
<td></td>
</tr>
</tbody>
</table>
Waterfall
- Working each step to completion before progressing
- Averse to introduce new changes in previous steps
- Longer time span prior to delivery

Agile
- Performing iterations more frequently & on a smaller scale
- Deliver working software more rapidly in small chunks
- Later changes in requirements
- Continual & team-wide knowledge transfer
• Agile approach compared to Waterfall

<table>
<thead>
<tr>
<th>Agile</th>
<th>Waterfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals &amp; Interactions</td>
<td>Process &amp; Tools</td>
</tr>
<tr>
<td>Working Software</td>
<td>Comprehensive Documentation</td>
</tr>
<tr>
<td>Customer Collaboration</td>
<td>Contract Negotiation</td>
</tr>
<tr>
<td>Responding to Change</td>
<td>Following a Plan</td>
</tr>
</tbody>
</table>
• Bimodal Organization
  – Agile benefits some projects
  – Waterfall benefits other projects

• Be aware! An organization is bimodal, not a project. A project must be Agile or Waterfall (or other type of project methodology)
AGILE IN YOUR ORGANIZATION
Determining if Agile is right for your organization

- Benefits
  - Speed to market
  - Flexible
  - Customer interactive
  - Positive Impact to Quality
    - Find defects earlier
    - Technical debt reduced
    - Maintenance cost reduced
    - Member experience improved
    - Internal customer experience improved
    - Reduced impact to help desk

- Fail often, Fail small, Fail Fast to win BIG
Organizational Change Management
- 3 reactions to change
  - Early Adopters
  - Open-minded but cautious
  - Cynics and Saboteurs

Agile is High Impact to Staff
- Smaller teams, but more teams
- Need to front-load the resources
  - Scrum Masters
  - Developers
  - Choose the Product Owners
  - Business Analysts
- Predictable staffing needs
- Manager role changes significantly
  - Becomes Servant Leader, not Functional Leader
Agile’s Empirical Control

- **Transparency**
  - Everyone knows what is going on—how the project is progressing.

- **Frequent Inspection**
  - The people who are invested in the project and process the most should regularly evaluate the project and process.

- **Adaptation**
  - Make adjustments quickly to minimize problems; if inspection shows that you should change, then change immediately.
• Technical Debt
  – “The eventual consequences of poor system design, software architecture or software development within a codebase”
  – “Includes those *internal* things that you choose not to do now, but which will impede future development if left undone”
AGILE PROCESS
• How Agile (Scrum) Works
• Product (Project) Roadmap

  — “A prioritized, holistic view of the high-level requirements that support the product’s vision.”
• **User Story**

  – “One or more sentences in the everyday or business language of the end user or user of a system that captures what a user does or needs to do as part of his or her job function.”

  – Similar to a Work Package

  – Syntax should be:
    • “Title: A name for the user story
    • As a (user or persona)
    • I want to (take this action)
    • So that (I get this benefit)
    • When I (take this action), this happen
• **Sprint Cycle (Sprint)**
  
  – “A ‘time-boxed’ effort, usually less than 30 days.”
  – “Within each sprint, the development team develops and tests a functional part of the product until the product owner accepts it and the functionality becomes potentially shippable product.”

• When one sprint finishes, another one starts.
• **Backlog**
  
  – “An ordered list of requirements that describes what must be done in order to successfully deliver a viable product.
  
  – It can consist of items such as features, bug fixes, non-functional requirements, technical work, and knowledge acquisition.
  
  – Requirements at this level are very light weight, understandable, and often are in User Story format.”
• **Agile Meetings**
  
  – **Sprint Planning**
    * A meeting in which the team prioritizes the Product Backlog, and selects the work to be done from that Backlog
  
  – **Daily Standup**
    * A brief, 15 minute or less meeting with the goal of continuously aligning the team as to what will be completed during the day, and if any blockers exist
  
  – **Sprint Reviews**
    * Held on the last day of the Sprint designed to review the work that was completed and the planned work that was not completed
  
  – **Sprint Retrospectives**
    * held after the sprint review to identify lessons learned during the previous sprint

*Blockers – anything that will prevent the resource from accomplishing the task (e.g. other priorities, personal time off)*
**Development Process**

**Plan and Initiate Workstream**
- Scrum Master, Development Owner, Key Stakeholders

**Kickoff Meeting**
- S.M., Product Owners, SME’s, S3 Rep, Dev Owner, Marketing, Compliance, Training, Liaisons

**Backlog Add, Revise, Groom and Prioritize**
- Prod Owners, SME’s, S.M., Dev Owner, S3 Rep

**Backlog Grooming & Relative Prioritization**
- Prod Owners, S.M.’s, Lead Architect, Dev Owner

**Sprint Planning**
- Scrum Team – S.M.’s, Lead Testers, Dev Owners + Dev Resources Plus Product Owners

**2-Week Sprint & Daily Standups**
- Scrum Teams and Testers

**Sprint Review**
- S.M., Product Owners, Dev Owner, Lead Test

**Go/No-Go Decision**
- Prod Owners, S.M., Dev Owner, S3 Rep

**Implement in Production**

**Readouts**
- Kickoff Meeting Participants plus Exec Stakeholders

**Retrospectives**

**Agile Development Processes**
- Daily Standup
- Sprint Review
- Go/No-Go Decision
- Implement in Production
Questions?

Presented by:
Gordie Ellison, MBA, PMP
Digital Strategy Program Manager
Open Technology Solutions, LLC
8085 S. Chester St. Ste 100
Centennial CO 80112
720.326.5092
gellison@open-techs.com