



Agile Scrum and PMBOK – Compatible or Contrary?



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Meeting Overview - Agenda

Topics:

- Review Agile/Scrum Methods
- Review PMBOK Structure
- Demonstrate how Agile/Scrum practices align with PMBOK
- Exercise – Map Agile/Scrum Process to PMBOK Process Groups

Some Definitions Before We Start

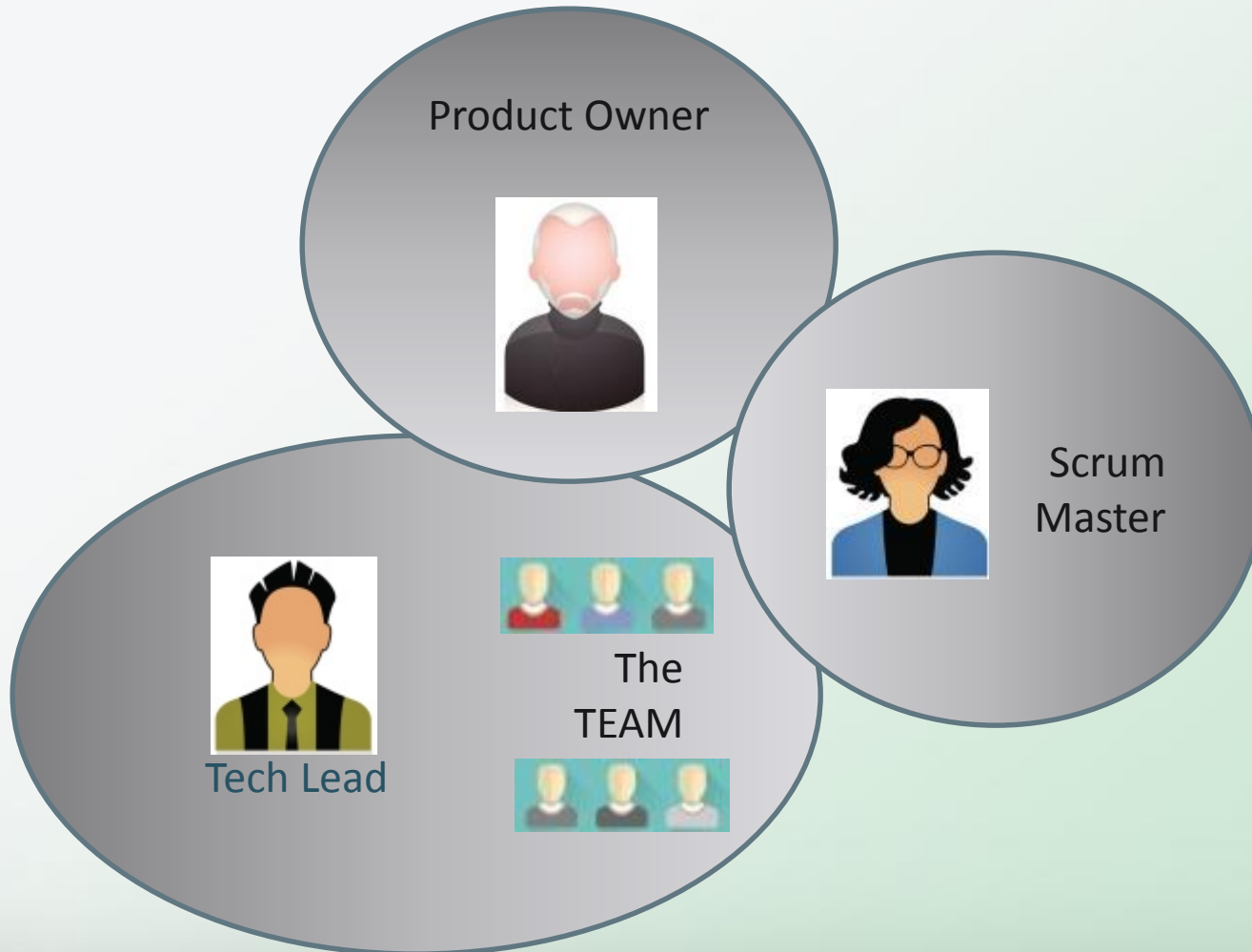
Agile – A collection of methods and techniques that facilitate rapid product delivery

Scrum – A central method of Agile that determines how a project is planned, organized and delivered

PMBOK – A guide book of overlapping and interacting processes used to accomplish work. Processes are described in terms of:

- Inputs – events, documents, plans, designs, etc.
- Tools & Techniques – mechanisms applied to inputs
- Outputs – work products: documents, products, etc.

The Agile Scrum Team



Who is the Product Owner?

Product Owner



The ‘business guy’, the one person ultimately accountable for project success & business value of the product:

- Determines **WHAT** will be done
- Communicates product vision
- Owns and prioritizes backlog & stories
- Defines conditions of satisfaction to help define ‘Done’.
- Accepts/Rejects stories
- Solicits customer and stakeholder feedback

Who is the Scrum Master?

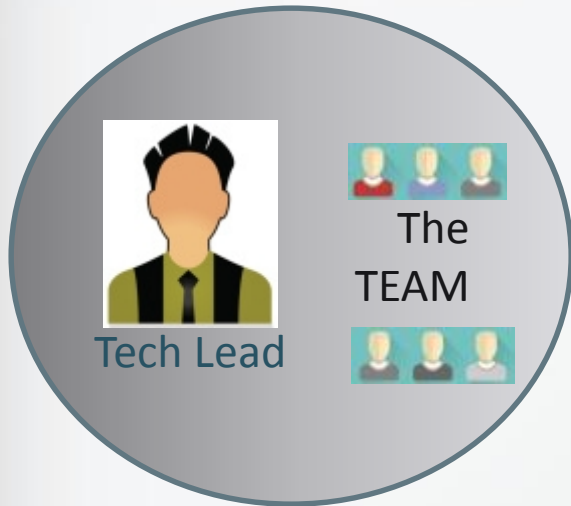


Scrum
Master

The process leader, serving the team as its leader:

- Determines the work PROCESS
- Builds empowered, self-organized teams
- Facilitates collaboration and open communication
- Removes impediments
- Creates visibility, metrics, accountability and FUN


Who is The TEAM?



The cross-functional team accountable to deliver business value in iterations:

- Determines HOW the work is done
- Engaged, motivated, self-organized, collaborative
- Plans and re-plans, commits to work, inspects and adapts
- Delivers 'Done' stories at each iteration.

What is a Sprint?


Stories are selected by theme



PRODUCT BACKLOG

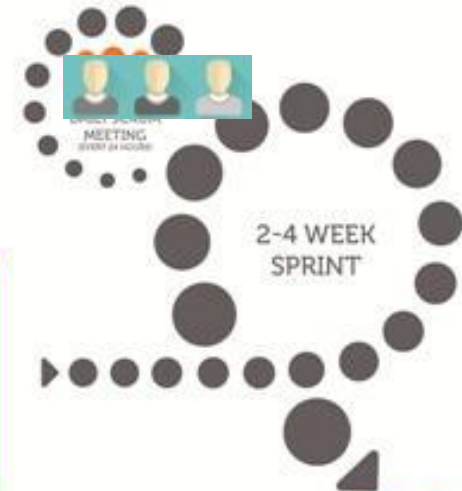


SPRINT PLANNING

Work is tracked and performed



SPRINT BACKLOG



POTENTIALLY SHIPABLE
PRODUCT INCREMENT

Product increments are pushed to market

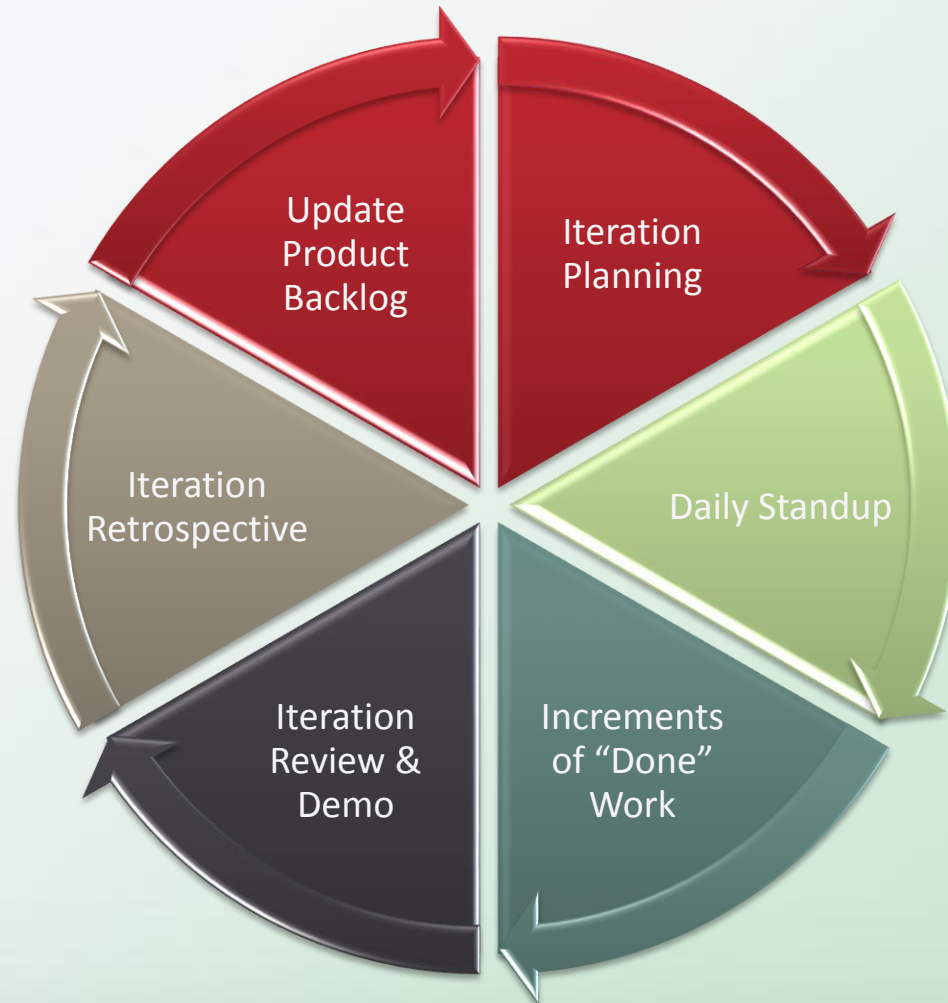
How does the Sprint iterate?

Stories are fed in

Work is
performed

Releases are
pushed out

Over and over
and over...



Agile is Driven by Abstract Tenets

Time-to-market

Stakeholder engagement

Embracing change (even late stage)

Develop a highly efficient team

PMBOK Brings Structure to the Abstract

Process Groups	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Knowledge Areas					
Integration					
Scope					
Time					
Cost					
Quality					
HR					
Communications					
Risk					
Procurement					
Stakeholder					

Get our act together and keep it together

Integration Management Processes

PMBOK

Develop Project Charter

- Create document to formally authorize project or phase with requirements to satisfy stakeholder expectations
- Develop PM Plan
- Direct and Manage Work

Monitor & Control Project Work

- Track, Review and regulate progress
- Perform Integrated Change Control – Manage all Change Requests

Close Project or Phase

- Finalize all activities across all PM Process Groups to formally complete the project or phase.

Scrum

Kickoff / Introduction Meeting

- Team meeting prior to first Sprint
- Define team norms and agree on processes and practices for the project

Sprint Planning Meeting

- Meeting on day 1 of Sprint
- “Task out” the stories
- Commit to the stories it can support in the Sprint

Daily Stand-up Meetings

- Short & Daily – accomplishments, plans, blockers

Sprint Retrospectives

- At end of Sprint, team meets to discuss what worked well, what can be improved, etc.

From Vision to Detail – What’s your story?

Scope Management Processes

PMBOK

Collect Requirements

- Define, document, confirm stakeholders needs and expectations

Define Scope

- Develop detailed description of project and product

Create the WBS

- Sub-divide deliverables to smaller, manageable components

Verify Scope

- Formalize acceptance of completed deliverables

Control Scope

- Monitor project status and change requests to scope baseline

Scrum

Vision and Roadmap

- Overall project goal
- High-level plan of delivery sequence

Release Plans

- Schedule of related projects to accomplish Product Owner’s vision and roadmap

Product Backlog

- List of all features/stories for the project
- Product owner can adjust priorities until Sprint is committed
- Decompose loose stories into more discrete plots – level of detail rises

Sprint Backlog

- Stories the team has committed to a Sprint

Sprint Review / Demo

- Show Stories developed in Sprint for approval

Been there, got the T-shirt

Time Management Processes

PMBOK

Define Activities

Sequence Activities

Estimate Activity Resources

Estimate Activity Durations

Develop Schedule

Control Schedule

Scrum

Story Point Estimates while in Backlog

- Measure of complexity
- T-Shirts, Fibonacci (1,1,2,3,5...), Dogs...

“Task Out” Stories in Sprint Planning Mtg.

- Tasks required to support story
- Estimate tasks in hours
- Identify cross dependencies

Sprints

- The time-boxed interval for development & testing
- Typically 1 – 4 wks. in duration
- Usually multiple Sprints in a Project

Control Costs... Within Limits

Cost Management Processes

PMBOK

Estimate Costs

Determine Budget

Control Costs

Scrum

Cost determined by team size and number of Sprints

- Attempts to limit variations in cost

Product Owner determines acceptable cost level

- Sets or approves initial schedule & cost
- Decides whether to approve additional sprints, if needed

Quality Management Processes

PMBOK

Plan Quality

Perform Quality Assurance

Perform Quality Control

Scrum

Story Acceptance Tests

- Defined by Product Owner and/or Story Writer
- Knows prior to development in Sprints

Test Driven Development

- Code designed and written to meet test requirements

“Definition of Done”

- Team pre-defined all the steps/tasks necessary to complete a Story
- Often includes final review/approval by Product Owner

QA Integrated to Team

- QA is an equal and integral member of the team
- QA tasks are defined and planned along with development tasks

The team will perform... or else!

Human Resource Management Processes

PMBOK

Develop Human Resource Plan

Acquire Project Team

Develop Project Team

Manage Project Team

Scrum

Product Owner is Voice of the Customer

Cross-functional Teams

- Team members can and should swap roles
- Can still have experts in various fields

Self-Organizing Teams

- Forming, Norming, Storming, Performing
- Team decides who does what – not dictated by a PM or Scrum Master

Scrum Master

- Coaches team on process and function
- Ensured collaboration and buy-in
- Removes blockers (issues & risks) so team concentrates on performing

HR Realities

- Still need to identify skills and acquire them
- Still need to monitor performance and adjust membership as necessary

The team will communicate - let 'em work!

Communication Management Processes

<u>PMBOK</u>	<u>Scrum</u>
Identify Stakeholders	Direct Business Participation <ul style="list-style-type: none"> • Product Owner represents business on a daily basis • Wider audience for Sprint Reviews
Plan Communication	Sprint Burn-down Charts <ul style="list-style-type: none"> • Daily monitor of team's delivery – tasks completed, hours remaining
Distribute Information	Project/Product Release Charts <ul style="list-style-type: none"> • Periodic monitory of team's delivery – stories completed, hours remaining
Report Performance	Communication Techniques <ul style="list-style-type: none"> • Co-located teams as much as possible • Face-to-face preferred • Story boards to show status
	Communication Specialist <ul style="list-style-type: none"> • Point person to communicate for team to outside • Often is the Scrum Manager but not required to be such

If a risk impedes we'll knock it down

Risk Management Processes

PMBOK

Plan Risk Management

Identify Risks

Perform Qualitative Risk Analysis

Plan Risk Responses

Monitor and Control Risks

Scrum

Impediment Log

- Track all impediments (blockers, issues, risks)
- Often on white board or “stickies”

Bias for “doing” over “planning”

- Risks & blockers identified at Sprint Planning and addressed daily
- Prefer to remove barriers as they arise
- Does not preclude risk planning if team decides that's necessary

Spikes

- Deeper research stories to ensure solution will work well or how to overcome a technical challenge posed
- Added to backlog and prioritized with other stories

Let us show you what we've done!

Stakeholder Management Processes

PMBOK

Identify Stakeholders

Plan Stakeholder Management

Manage Stakeholder Engagement

Control Stakeholder

Scrum

Identify Team Members according to plan
(Business/Product Owner, Scrum Master, Team)

Conduct demonstrations to relevant stakeholders

Gather feedback from stakeholders, add to project
backlog

Communicate to stakeholder community

PMBOK and Agile – In Concert!

		Initiating	Planning	Executing	Monitoring & Controlling	Closing
Process Groups	Knowledge Areas					
Integration		> Kickoff	> Sprint Planning	> Daily Stand-up		> Sprint Retrospectives
Scope		> Vision & Roadmap > Release Plan	> Product Backlog > Sprint Backlog			> Sprint Review / Demo
Time			> Story Points > Task Out Stories > Sprint Plan			
Cost			> Cost by Team/Sprint		> Product Owner Sets Limits	
Quality			> Story Acceptance Tests	> TDD > QA in Team	> Definition of Done	
HR		> Product Owner	> Cross-functional Team	> Self-Organized Teams	> Scrum Master	
Communications				> Direct Business Participation > Co-located Teams > Face-to-face	> Sprint Burn-downs > Release Charts > Communication Specialist	
Risk			> Risk identification at Sprint Planning	> Remove barriers as they present	> Impediment Log > Spikes	
Stakeholder				> Product Owner > Communication Specialist	> Product Owner > Communication Specialist	> Approval of "Done"

Fin

The Agile Scrum Team

