



PROJECT MANAGEMENT CENTER FOR EXCELLENCE

A.J. CLARK SCHOOL OF ENGINEERING
Civil & Environmental Engineering Department



BRIDGE THE CHASM BETWEEN TRADITIONAL WATERFALL AND CHAOS AGILE DELIVERY: HOW KEY PMBOK CONCEPTS ARE EXECUTED IN SUPPORT OF AGILE PRINCIPLES

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A bit about me

- **6 Years – USAF:** NSA Operations, then quick reaction capabilities deployments
- **I’m a Terp!!:** Graduated from UMD in December 1990
- **8 Years – EDS:** Systems Engineer, Project Manager, Portfolio Manager on large business solution delivery implementations at General Motors
- **17 Years – IBM:**
 - Rapid/Agile/Lean project, program manager in partnership with Ford
 - Was a PMI and IBM Certified Project Manager, now a consultant
 - Have consulted on 400+ engagements and worked with many others in IBM to evolve our Agile/DevOps capabilities (Assess, Innovate, Transform)
 - Led our first **troubled Agile** assessment at Regence Blue Cross in 2005
 - Focused on U.S. Federal Agile exclusively for the past 3.5 years including National Archives, USCIS, Army Logistics, FEMA, SAMHSA, GSA, others
 - Worked with our IBM Center for the Business of Government to develop a **guide** to help agencies learn some lessons based on our experience
 - I **strive** to build bridges between Agile and Traditional perspective

Net-net: I have stuck with “Agile” because when it is done with discipline, and to scale, it brings all parties together, leveraging proven practices, to create innovative solutions that delight my customers

Why this topic??

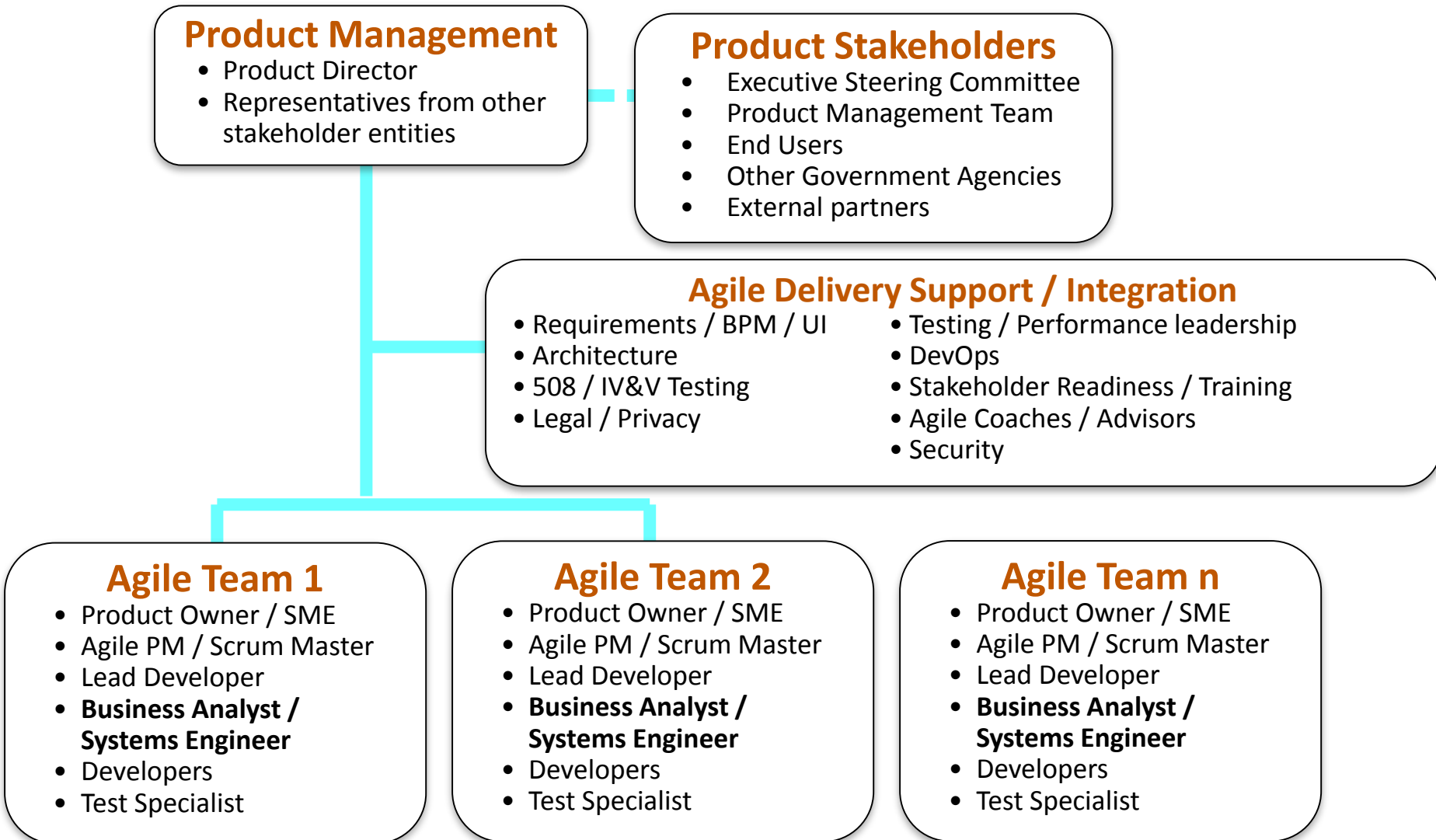
- Rapid and Agile practices have been in use for over 20 years
- There are great and not-so-great (some chaotic) Agile implementations
- Those that are great typically include PM practices that have been optimized to support Agile
- I continue to observe a chasm between:
 - Traditionally trained / experienced Project Managers who are set in their ways and concerned about Agile delivery (They should be concerned about Chaos Agile delivery)
 - The Agile community and practitioners who may not have been trained in, and see no need for traditional Project Management
- Today we aspire to (in a half hour :):
 - Provide perspective (that many Agilists haven't been trained on) on how PMI Concepts are implemented for disciplined, scalable delivery of Agile projects
 - Arm Project Managers (or those who aspire to be) with some of the information they need to have success with Agile delivery
 - Perhaps improve your ability to bridge the chasm, so that you and your teams can both delight your clients and deliver with excellence

Project Initiation: Critical to establishing scope, budget, stakeholder commitment for Agile (or not)

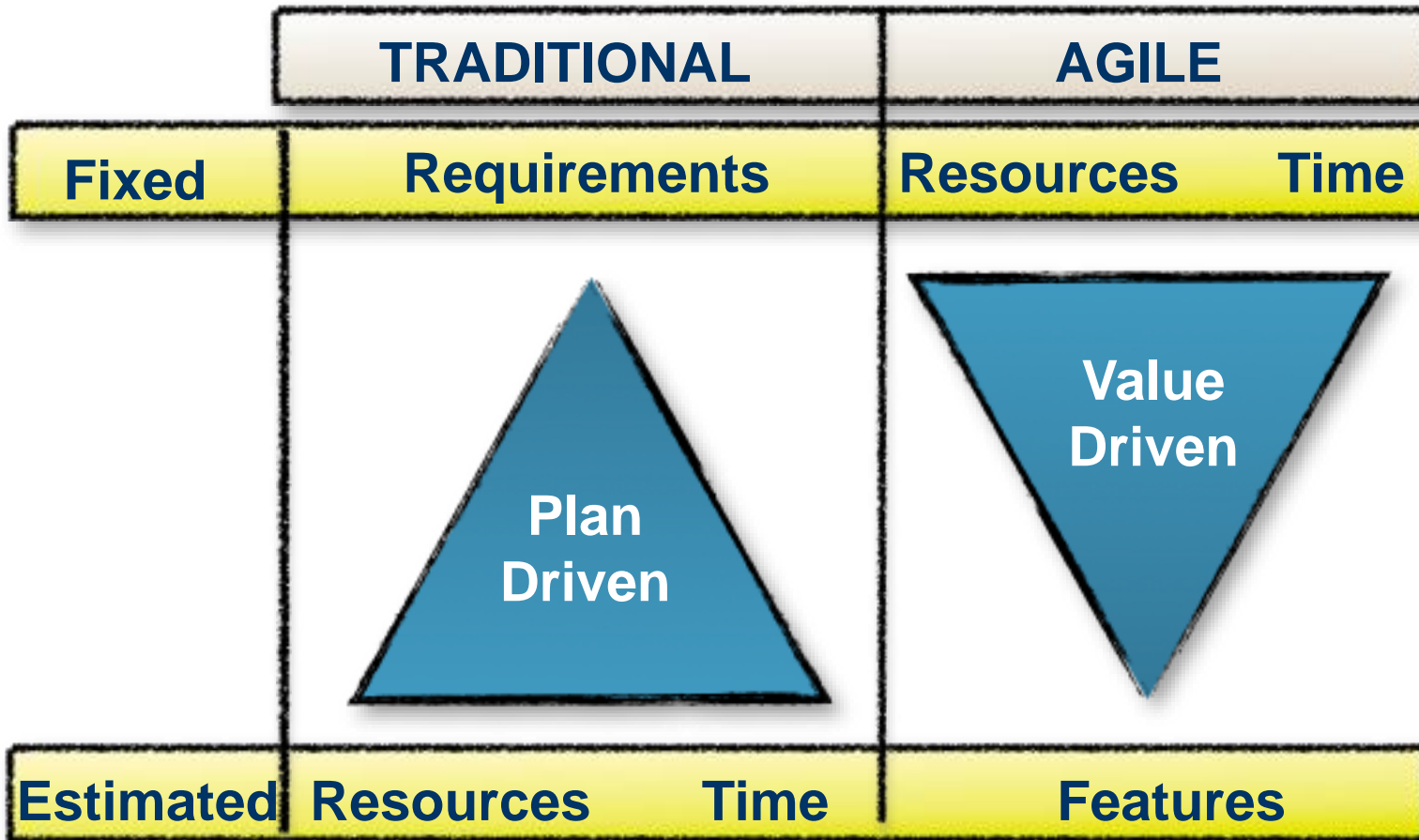
- Contract needs to support Agile delivery:
 - Fixed Time, Fixed Budget/Cost, variable scope
 - Client participation
 - Their roles and responsibilities
- An “Agile Charter”: Most client projects (and organizations) benefit from using a Charter to define the work
 - Document the “Vision” of the agile initiative
 - Define Goals, Objectives
 - Context diagram of scope
 - Organization
 - Impacted entities
 - Roles & Responsibilities of stakeholders and their staff required to deliver
 - Define a clear and open path to executives for escalation
 - Rough budget / time

Some simple projects, in an organization that is already enabled for Agile may only need a high level vision before backlog grooming, and defining first iterations

Organization type: A projectized organization is best suited to support Agile principles and practices (Empowers PM's and teams)

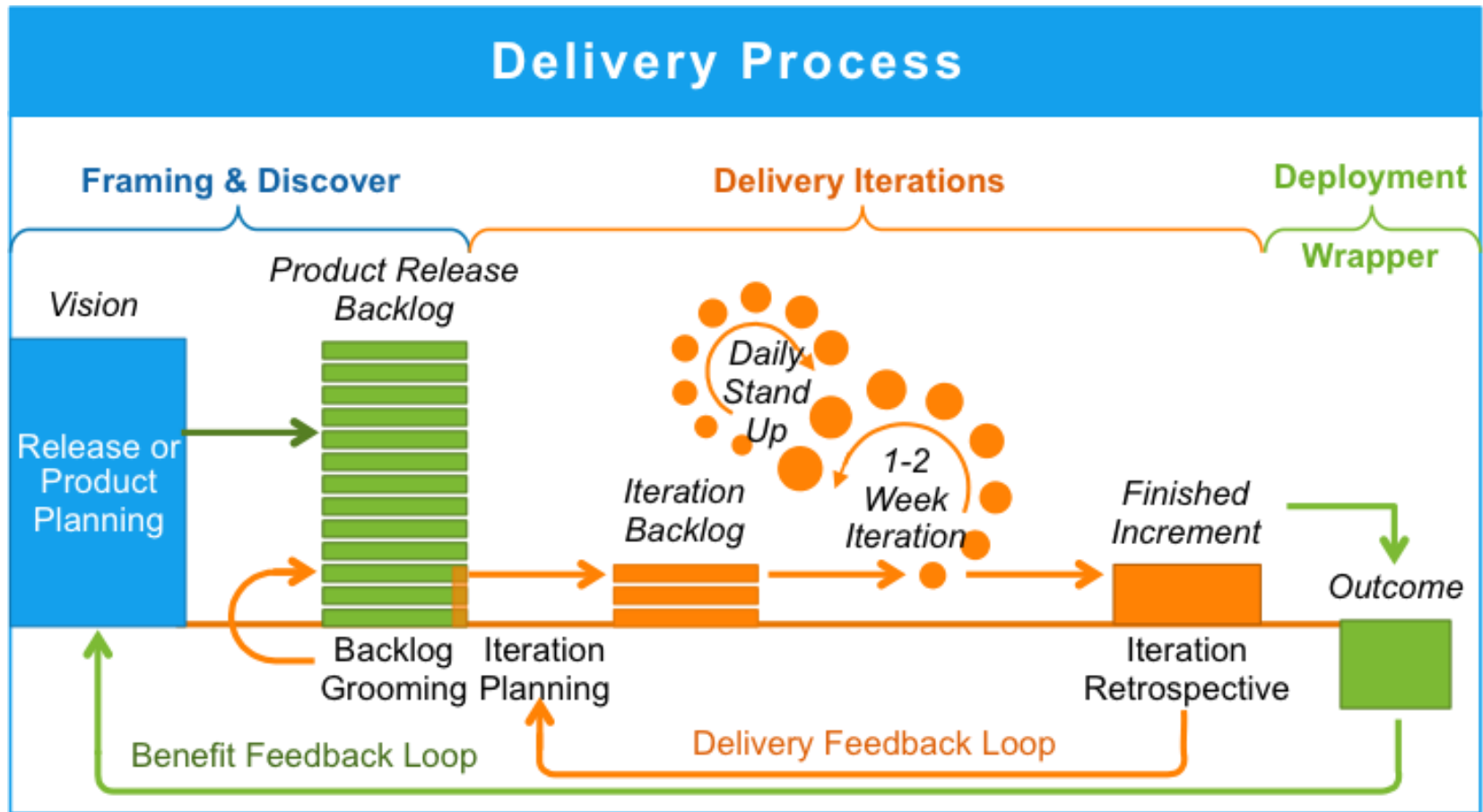


The triple constraint: Agile projects vary scope and assume fixed time and fixed resources

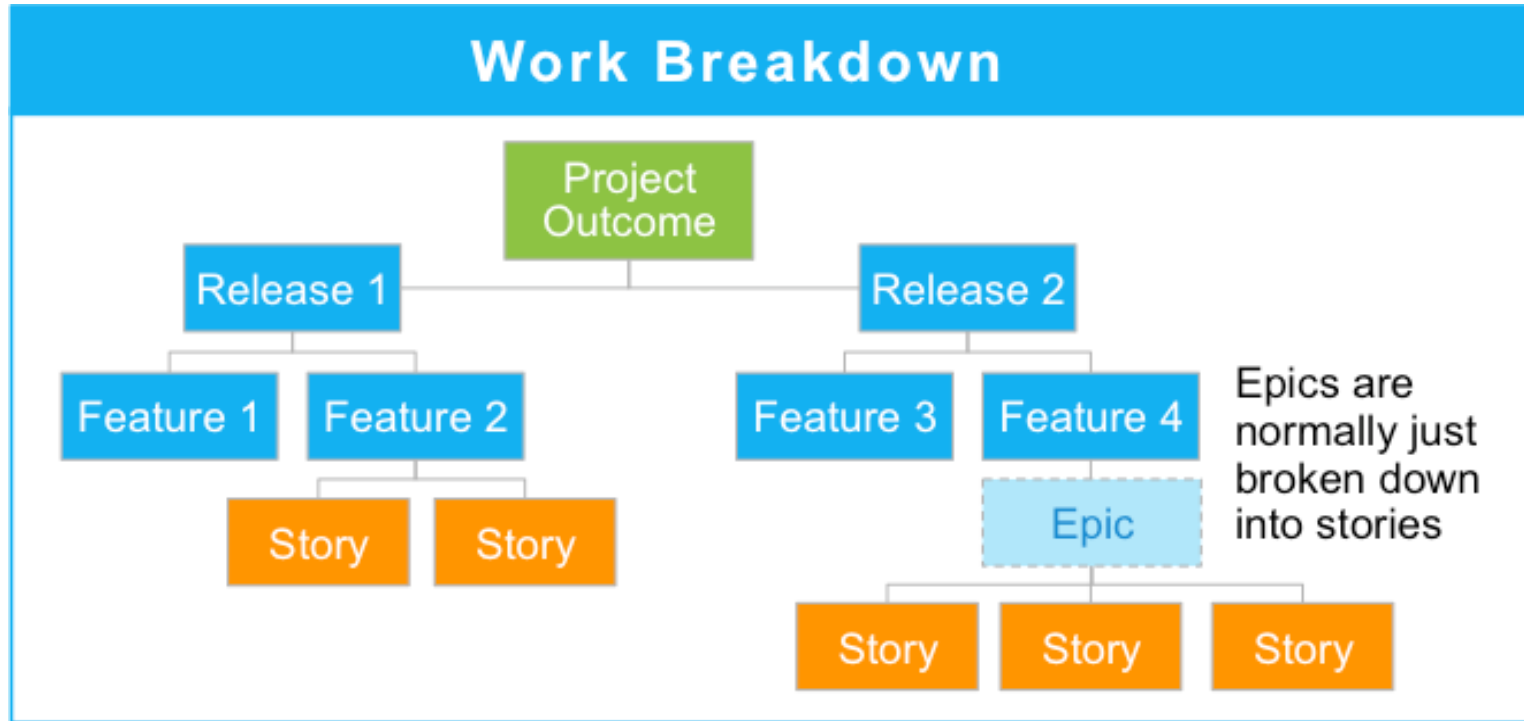


This makes project management for IT projects much simpler (less focus on FORMAL change control that increases scope, time, budget)

Project Planning: Using a “Spiral” approach, we plan and re-baseline more frequently, with better planning information



Project Planning: An Agile WBS is driven by outcomes as opposed to SDLC phases (Features, Epics, Stories)



- There are Agile tools that enable this
- Some clients request a high level MS-Project Schedule, but we typically only show releases, iterations, key milestones (The remainder in an Agile tool or spreadsheet)

Project Planning: Estimating, Prioritization and Planning is conducted by the team, with guidance from the Agile PM

Planning

Estimation

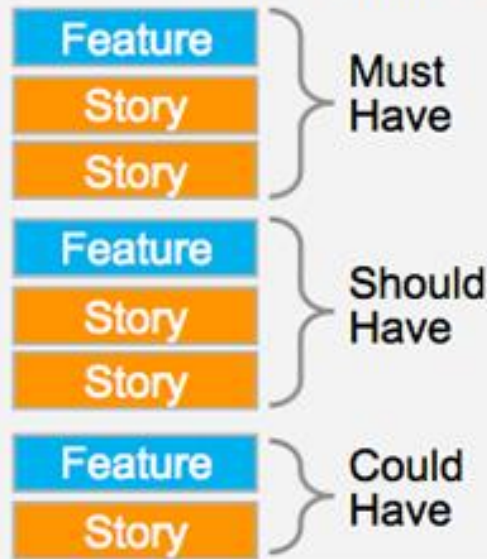


Story estimates are obtained through consensus and represented using a relative scale (1, 2, 3, 5, 8, 13, ...)



Prioritization

Prioritize according to business value and risk



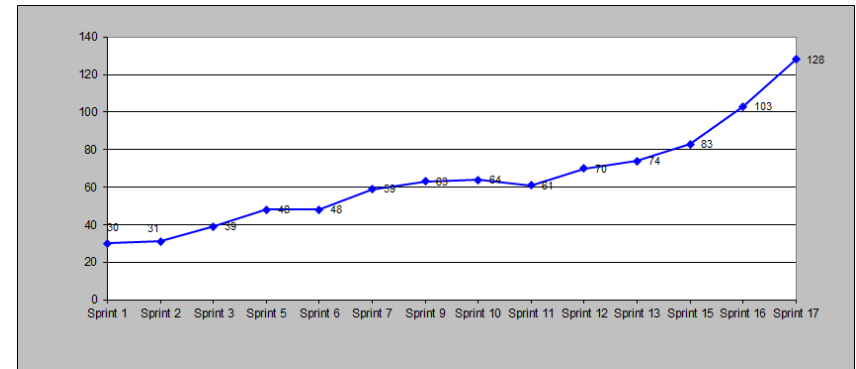
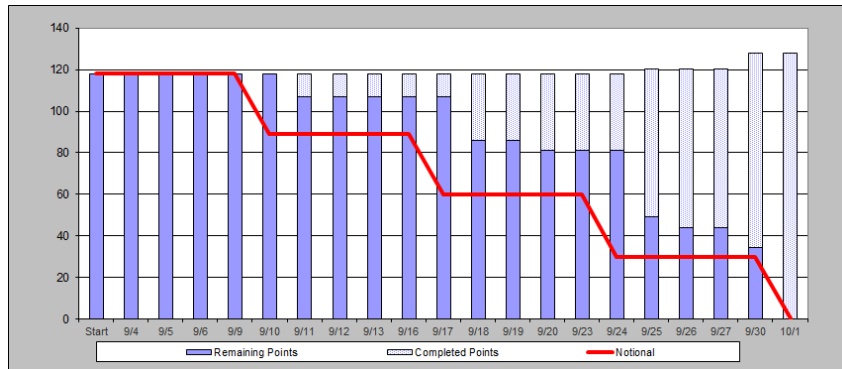
Planning

Key planning ideas:

- Light-weight
- Adaptive
- Evidence based
- Visual

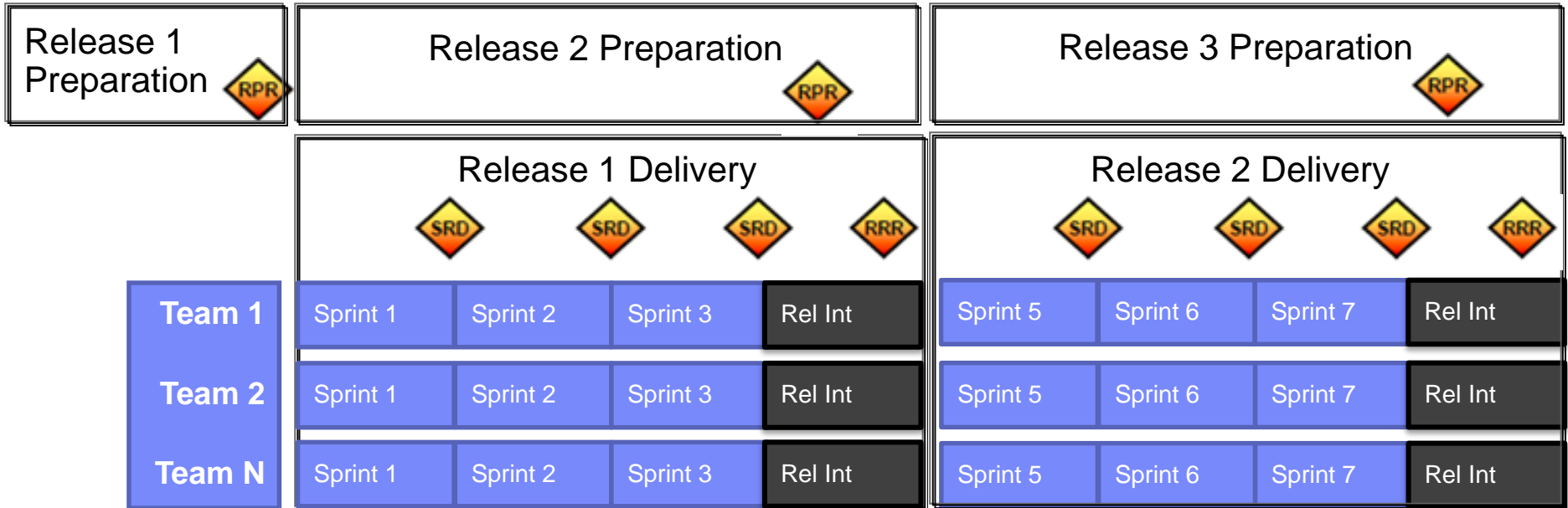


Execute/Monitor/Control: More verbal and primary measurement is how many stories are “done” in a given Iteration or Release



- Daily:
 - Daily agile team Scrum, and Scrum of Scrum meetings – Stories, tasks, impediments
 - Dashboards / tooling that all program participants can access for status, major impediments, backlog of evolving “stories”
- Weekly:
 - Face to face between Mission Program Lead, CIO, Partner executive(s)
 - Product Management Team discussion of current and next release
- Ongoing joint/facilitated work sessions:
 - Group backlog grooming to refine epics, stories, acceptance criteria, assumptions
 - Retrospectives
 - Demonstrations

Phases and Gates: Larger Agile projects (with many Agile teams) typically leverage a three gate review approach



- Release Planning Review**
 - Baseline includes estimates and commitment to “Features” with Story assumptions, T-Shirt estimates (S,M,L), and fixed budget estimates (Cost of each Agile team) and support per “Sprint”
- Sprint Review & Demo**
 - Prior to each Sprint, each team estimates Story Points and commits to stories they will deliver that Sprint. After each Sprint, Actual Stories / (Points) delivered and demonstrated is measured
- Release Readiness Review**
 - Achievement of real earned value and comparison of baseline vs. actuals as Release is deployed to end users. Teams frequently refine the scope of features and stories through discovery throughout the release, so expect some **change, and increase in stories / scope** but if way off, then that typically means that improvements to Release Preparation activities are in order

** This is an example 16 week release cycle...we also aspire to implement continuous delivery practices which provide more frequent releases (client/product/project specific)...*

Summary and final questions

- We discussed how PMBOK principles are implemented to support / improve Agile delivery
- Hopefully you can leverage them on you projects
- Consider obtaining additional PMI-ACP training and certification
- If you need help to expedite your success with large scale Agile delivery, contact me:
 - Paul Gorans, Agile competency lead, IBM Federal
 - pgorans@us.ibm.com
 - (313) 574.5973

Download our guide from our Center for the Business of Government for some additional disciplined, scaled Agile perspective:

<http://www.businessofgovernment.org/report/guide-critical-success-factors-agile-delivery>