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Setting Agile-Centric Release Criteria

Aka Done-Ness or Definition of Done (DoD)

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Outline

Introduction

1. Agile Goals & Criteria
2. Team Level: Done-Ness
3. Sprint Level: Story & Acceptance
4. Release Level: Freeze, Entry & Exit Criteria, and Release Criteria
5. Release Train / Influence Points
6. Q&A

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Establishing Goals & Criteria Why They Are Crucial?

- Agile teams are essentially self-directed, so plans don't drive behavior or success…

- **People & Teams do** and **Goals drive each Team!**

- The teams then *swarm* around the goals, using their creativity and teamwork to figure out:
  - What's most important
  - How to achieve it
  - Always looking for simple & creative—20% solutions
  - With focused and consistent quality practices & activities

Lean Principles Applied

- Most important aspects first
- KISS principle; no Gold-plating
- Small deliverables; worked on serially
- Deliver End-to-End behavior
  - In thin *'Slices'*
  - UI to Backend DB
- Driven to done, into *inventory* as completed components, as soon as possible!
  - Avoiding 90% done syndrome
  - Post-Sprint integration collaboration
- Rarely re-visited; mindset is to ruthlessly minimize rework

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Notions of Done-Ness in Development

- Need to define “Done” from team members perspectives
- If you’re a developer, what does “I’m done with that story” mean?
  - ✓ Code complete;
  - ✓ Checked in – build successful;
  - ✓ Integration;
  - ✓ Run by the Product Owner; signed-off

  Code reviewed (paired)

  Unit tests developed – passed

  QA collaboration
- Every type of work should have a definition of Done-Ness! How else could you estimate the work?

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Notions of Done-Ness in Testing

- If you're a tester, what does "I'm done with that story" mean?
  - ✓ Test cases designed w/a broad view to test cases (unit, functional, acceptance, regression)
  - ✓ Test cases pair-reviewed with development & test team members
  - ✓ Test cases - checked into repository
  - ✓ Ran test cases successfully; no issues
  - ✓ Ran Acceptance Tests with the Product Owner
  - ✓ Automated the Acceptance Test cases
  - ✓ Connected the automation to the Continuous Integration environment
  - ✓ Validated independent execution

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Done-ness criteria, circa – 2010 Agile Conference

- Example: Salesforce.com

- **User Stories**
  - All defined Acceptance Criteria for a user story have been met.

- **Code**
  - Code implementing the user story functionality is checked in and follows department standards. This includes QE-reviewed automated tests checked in with all feature code.
  - No open regressions (you break it, you own it), with automated tests written for all regressions, and reviewed by QE.
  - No open P1 & P2 bugs for the implemented functionality in the sprint.

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Done-ness criteria, circa – 2010 Agile Conference

- Example: Salesforce.com

- **Quality**
  - 70% of all test cases are automated and adhere to our automation coverage principles and standards.
  - Code Coverage of 70% (unless a different % discussed and agreed to by team).
  - Test plan, cases and execution for sprint functionality, and regression and cross functional test cases related to sprint functionality, need to be reviewed and entered into test repository with 100% of test cases in repository executed, and all P1/P2 cases passing.
  - All resolved bugs have been verified and closed for the sprint functionality.

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Done-ness criteria, circa – 2010 Agile Conference

- Example: Salesforce.com

- **Security**
  - Features adhere to security principles and standards with all critical issues resolved.
  - All high risk features have been Threat Modeled with the Product Security team. In depth security testing scheduled, if necessary, during the release.

- **Performance/Scalability**
  - Performance/Scalability impact of sprint functionality understood and quantified, and system testing scheduled

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Done-ness criteria, circa – 2010 Agile Conference

- Example: Salesforce.com

- **User Experience**
  - UE has reviewed any new features or significant changes in the UI, and critical feedback has been incorporated, with all resulting P1 and P2 UI issues fixed.
  - Usability testing has been completed (unless deemed unnecessary), with all resulting P1 and P2 UI issues fixed.
  - Code and the UI have been reviewed to ensure 508 compliance - see the compliance checklist features that cannot be made compliant have been brought to the attention of the UE team
- **Localization**
  - All UI components have labels ready for localization vendors.

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Done-ness criteria, circa – 2010 Agile Conference

- Example: Salesforce.com

- **Documentation**
  - User documentation that describes all aspects of the sprint functionality is complete and checked in.

- **Product Metrics**
  - Metrics to concretely measure customer usage (value delivery) of the sprint functionality have been defined.

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Impact of Done-Ness Elsewhere

- It's not just an exit criteria!
- It's a heuristic for teams to check themselves as they collaborate in performing "acceptable" work
  - An consistently aligned 'bar' for professional engineering work
- It's also incredibly important in sizing the Product Backlog elements and in determining Release & Sprint plans
  - Including architecture & design and in working research spikes

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Story Acceptance

- Each User Story should have acceptance criteria as part of the card
- They should focus on the verifiable behavior, core business logic, key requirements for the story
- Typically, they are crafted by the Product Owner
  - *Leveraging skills of Business Analysts and Testers*
- Story acceptance tests are normally automated and run as part of feature acceptance AND regression
  - FitNesse and Cucumber are among the Open Source tools enabling this

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User Story Examples

As a dog owner, I want to sign-up for a kennel reservation over Christmas so that I get a confirmed spot

Verify individual as a registered pet owner
Verify that preferred members get 15% discount on basic service
Verify that preferred members get 25% discount on extended services and reservation priority over other members
Verify that past Christmas customers get reservation priority
Verify that declines get email with discount coupon for future services

Story – Sprint (Execution) Readiness

Prevents teams from taking on stories that are ill groomed or defined

Increases sprint success

- ✓ The story is well-written; and has a minimum of 5 Acceptance Tests defined
- ✓ The story has been sized to fit the teams velocity & sprint length: 1-13 points
- ✓ The team has vetted the story in several grooming sessions—it's scope & nature is well understood
- ✓ If required, the story had a research-spike to explore (and refine) it's architecture and design implications
- ✓ The team understands how to approach the testing of the stories' functional and non-functional aspects
- ✓ Any dependencies to other stories and/or teams have been "connected" so that the story is synchronized and deliverable
- ✓ The story aligns with the Sprints' Goal and is demonstrable

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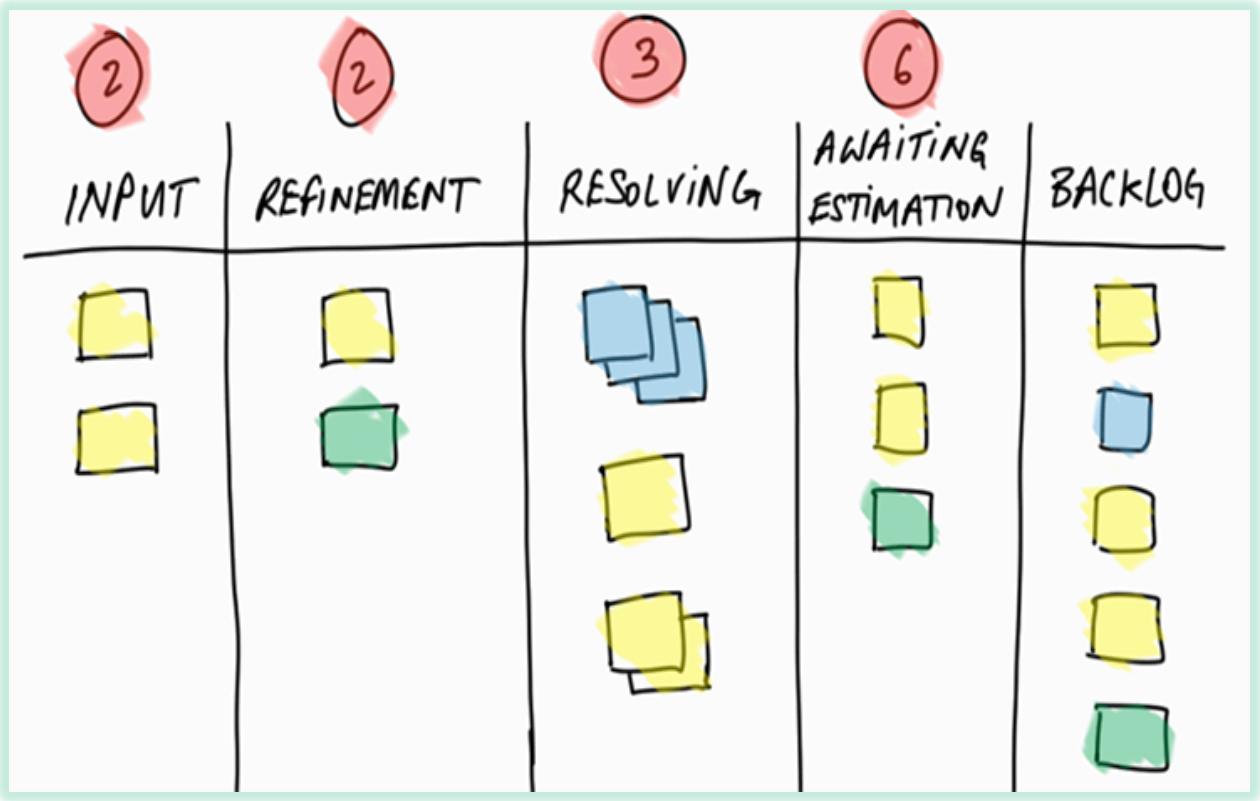
Definition of Ready – Kanban Board



http://www.anecon.com/blog/user-stories-definition-ready-kanban-board/

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Iteration / Goal Acceptance

- Each Scrum Sprint has a Product Owner determined goal
- Usually sprint success is not determined by the exact number of completed stories or tasks
- Instead, what most important is meeting the spirit of the goal

Deliver a 6 minute demonstration of the software that demonstrates our most compelling value features and achieves venture capital investment interest

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Release Criteria

- Goals and objectives for the entire project release
- Usually they are multi-faceted, defining a broad set of conditions
  - Required artifacts & levels of detail
  - Testing activities or coverage levels
  - Quality or allowed defect levels
  - Results or performance metrics achievement levels
  - Collaboration with other groups – dependency management
  - Compliance levels
- That **IF MET** would mean the release could occur.

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Release Train Management

- Iterative model with a release target
  - Product centric
  - Focused on a production push/release
- Synchronized Sprints across teams
  - Some teams are un-synchronized, but leads to less efficient cross-team (product) interactions
- Continuous Integration is the glue
  - Including automated unit and feature tests; partial regression
- Notion of a *"Hardening Sprint"*
  - Focused more on Integration & Regression testing
  - Assumption that it's mostly automated
  - Environment promotion

- Define a final Hardening Sprint where the product is readied for release
  - Documentation, Support, Compliance, UAT, Training

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Release Train Management “Internal” Driving Forces

- Customer’s ability to “accept” the release
- Value being delivered in the release – purely scope
- Hardening Sprint “reality”
  - Time, Complexity, Automation, Size, Compliance, and Industry
- Internal team readiness
  - Customer support
  - Sales & Marketing readiness
  - Overall documentation & training

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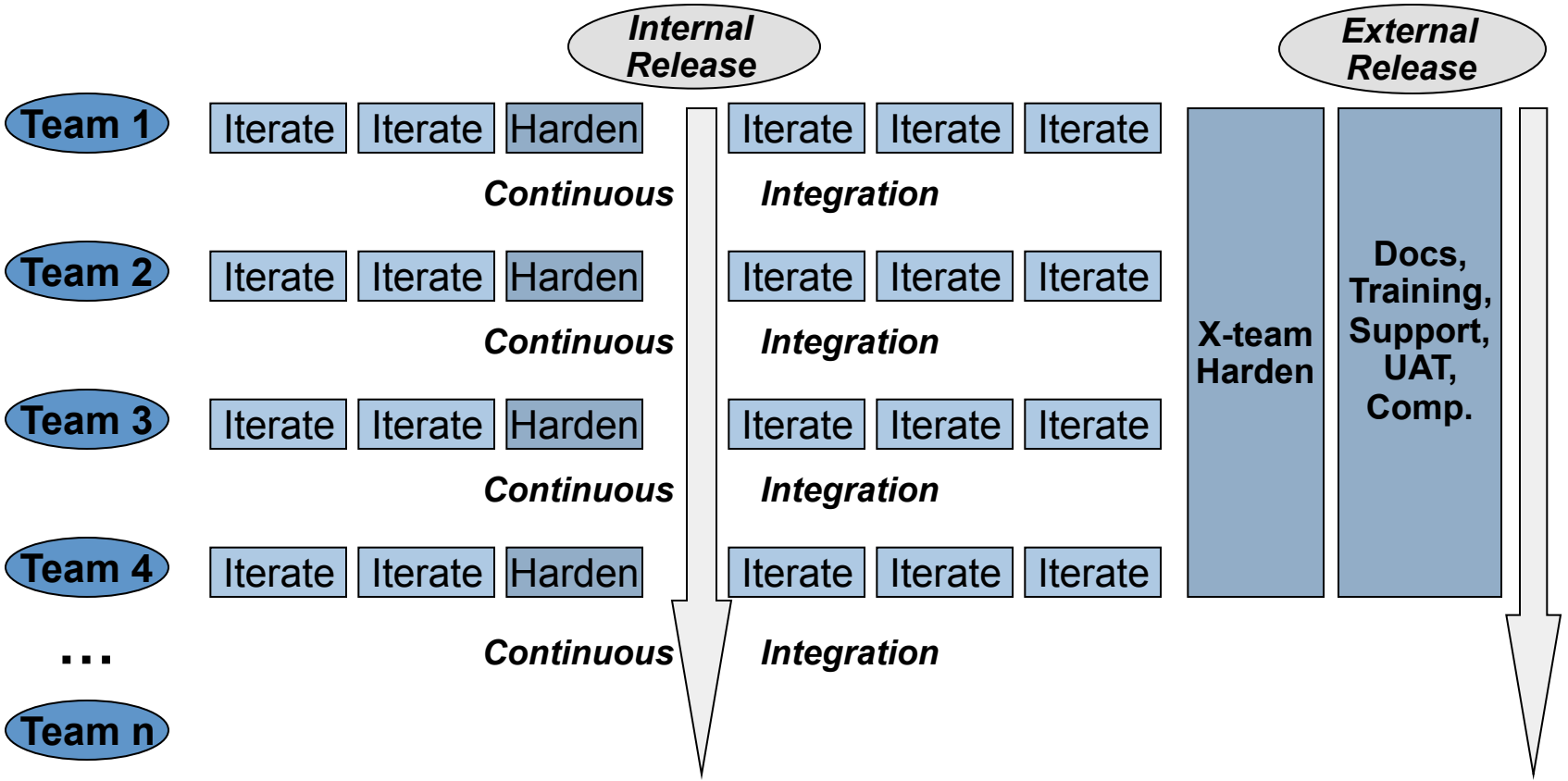
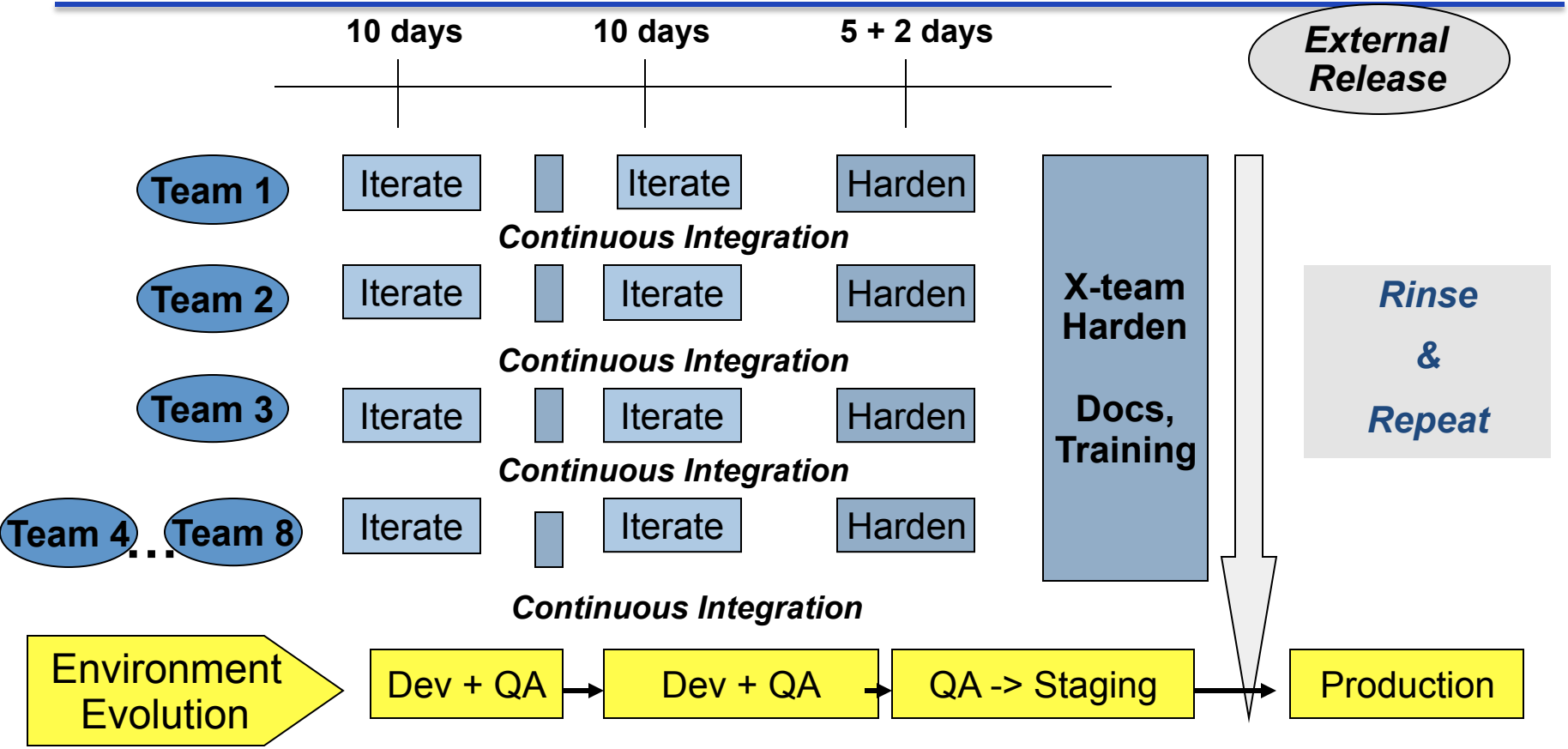
The Agile Release Train Synchronized



The Agile Release Train Example: eCommerce / SaaS Model



Release Train Management “Motivational” Driving Forces

- Vision
  - Schedule for delivery
  - Feature set(s); Minimal Marketable Features (MMF’s)
  - Goals for each team

- Themes
  - Which teams will be working on what components?
  - ‘Packages’ of User Stories
  - Prioritized by business value & need

- End-to-End Use Cases
  - Integration focused execution

Release Goal Setting A Key for Coordination

- As you scale, each planning level should create criteria (Sprint Goals) that are –
  - Interrelated and cohesive
  - Focused towards the end product release and not simply on each teams deliverables
  - Identify dependencies and overall workflow

- The traditional notion of Chartering also applies at the higher levels, with Charters defined as:
  - Goals, Objectives & Scope
  - Clearly measurable view to “Done” – Release Criteria
  - Multi-faceted view towards quality (defects, coverage, non-functional requirements)
  - Allowing for team scope trade-offs

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Levels of Criteria

Activity	Criteria	Example
Basic Team Work Products	Done'ness criteria	Pairing or pair inspections of code prior to check-in; or development, execution and passing of unit tests.
User Story or Theme Level	Acceptance Tests	Development of FitNesse based acceptance tests with the customer AND their successful execution and passing. Developed toward individual stories and/or themes for sets of stories.
Sprint or Iteration Level	Done'ness criteria	Defining a Sprint Goal that clarifies the feature development and all external dependencies associcated with a sprint.
Release Level	Release criteria	Defining a broad set of conditions (artifacts, testing activities or coverage levels, results/metrics, collaboration with other groups, meeting compliance levels, etc.) that IF MET would mean the release could occur.

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DoD – another view

Task:

- Implemented
- Unit Tested
- Code commented
- Code peer reviewed
- In source trunk
- In CI build
- Coverage met
- Standards met
- Tracked
- Other metrics?

Story:

- AC met
- All agreed tasks done
- Functionally tested / auto test built
- All known bugs fixed
- CI success, including DB / config updates
- Smoke-tested
- Integration tested
- Tracked
- Documented for user view

Sprint:

- End date met
- Stories demo'd
- UAT complete
- Retro held and documented
- Product backlog updated
- Exploratory testing done
- Performance (etc.) tested
- Regression suite updated and verified
- All bugs closed or postponed
- Installation works
- Documented for tech. view

Release:

- All agreed sprints done
- Integration tested / hardened
- Documentation "tested"
- Install packages complete
- Release notes
- Marketing collateral
- Regression test suite complete
- Security testing
- PO sign-off

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Exercise

- Gather in small groups; better that you are from the same company/ organization OR those with similar characteristics
- In this section, we discussed the various levels of criteria that are important within agile teams.

1) Amongst your team, discuss how you've established goals & criteria in your Agile (or non-Agile) teams
   - What levels are the most important?
   - What levels don't matter as much?
2) What part does the team play in definition? Should play?
3) Does defining what "done" means really matter? How?
4) If you had only one to pick, which would it be? And why?

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Wrap-up

- Self-directed Agile teams are "directed" by their Goals. There are 4 Levels:
    1. Professional / Done-ness
    2. Feature / Story
    3. Iteration / Sprint
    4. Release Criteria

of goals driving *Excellence* in any agile team.

In Waterfall you get what you Plan for…

In Agile, you get what your Goals drive you towards…

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Questions?

- Final questions or discussion?

Thank you!

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