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Agile 101 Chapter 3

An Introduction to Daikibo



August 2013

Agile 101 – Four Chapters

- Chapter 1 – An Introduction to Agile – General Overview
- Chapter 2 - Introduction to Scrum
- Chapter 3 – Introduction to Daikibo



Agenda

- Background on Daikibo
- Scalable Agile
- Daikibo Teams
- Team Alignment
- Pipeline
- Sprint Close-up
- Additional Roles
- Metrics
- Differences between Scrum and Daikibo
- Best Practices



大規模

{ Daikibo }

Japanese Phrase For
“ **Large Scale** ”

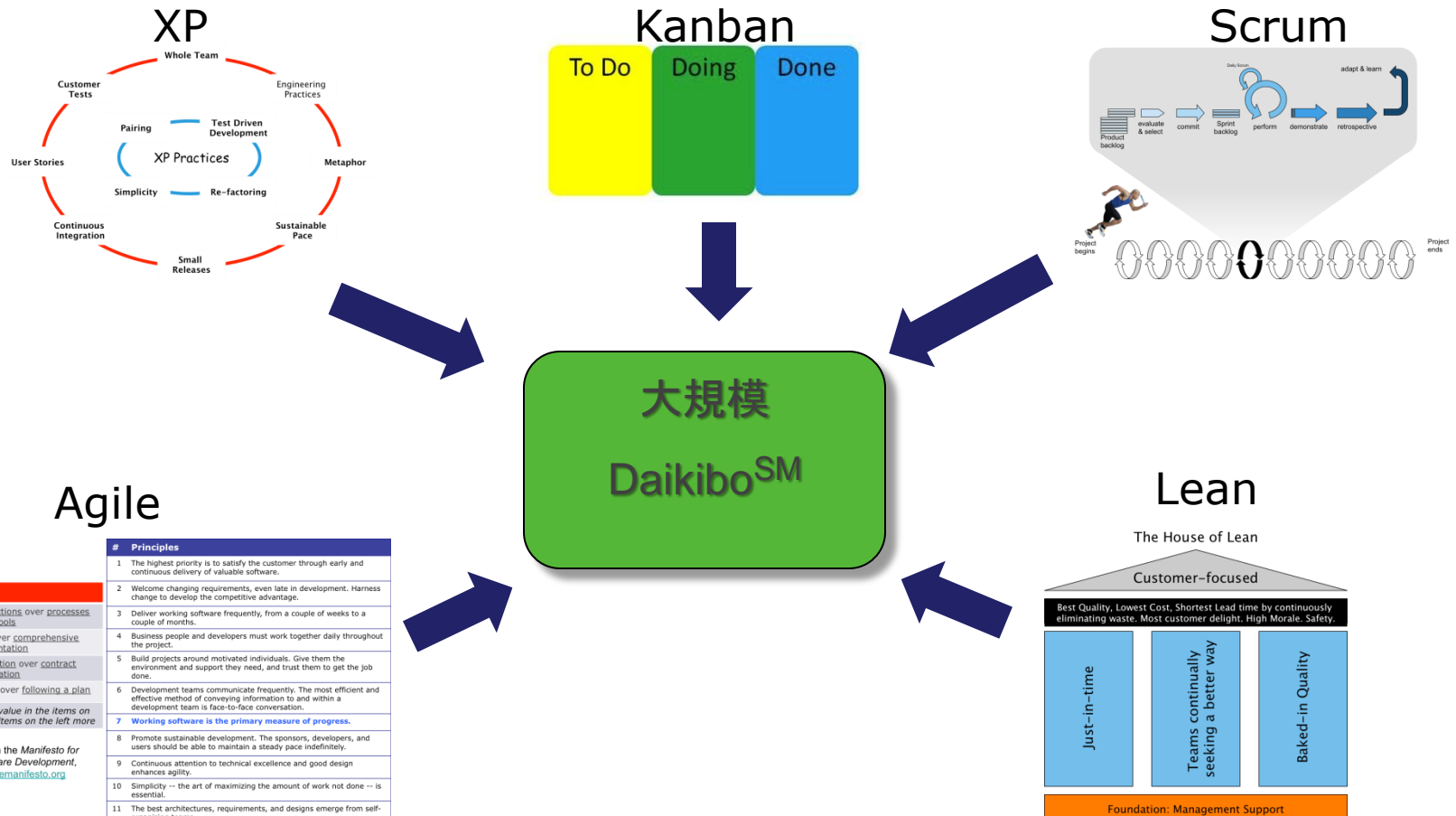
**DaikiboSM perfectly encompasses Cognizant's
Scalable, Distributed, Hybrid Agile approach
with *Location Transparency***

Distributed Teams or Integrated Teams



Background on DaikiboSM

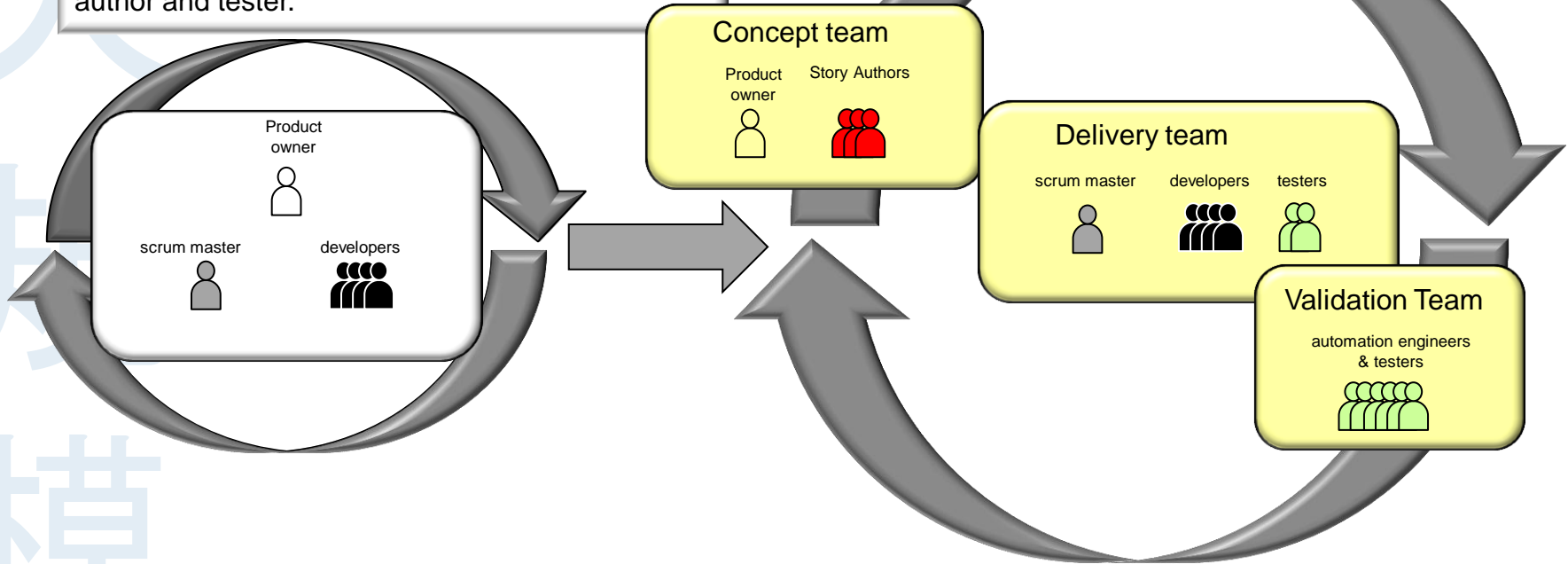
- DaikiboSM is a combination of Scrum, Kanban, and XP frameworks, and supports both Agile and Lean principles.



DaikiboSM Software Development

“Orthodox” Agile-Scrum Approach

One self-organizing, cross-functional team writing stories, designing, developing, testing, and producing production quality functionality in each sprint. Developers play many roles, including story author and tester.



“Hybrid” DaikiboSM Agile Approach

Separate cross-functional teams and bifurcated responsibilities (a producer-consumer model) operating in an incremental-iterative pipeline approach, following Agile principles.

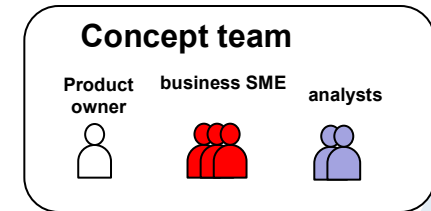
- ✓ Concept team – story production/generation
- ✓ Delivery team – story consumption
- ✓ Validation team – story validation



DaikiboSM Teams

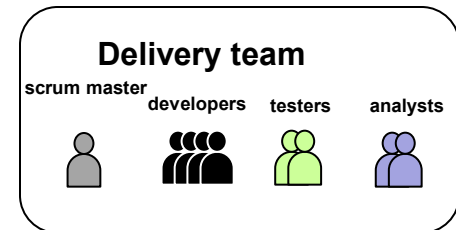
▪ The Concept team

- Author User stories & work closely with the product owners
- Elaborate the user stories with Dev and QA
- Prioritize, size and rank (score) the stories
- Groom the Product Backlog
- Prepare the Product backlog for the development team
- Collaborate with the delivery team on user story refinement
- Demonstrate final Iteration output to product owners



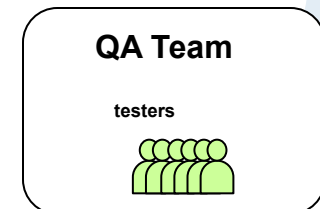
▪ The Delivery team

- Select the stories based on the priority from the product backlog
- Break the story into tasks and estimate hours for each task
- Developers choose the task, develop the code and execute unit tests
- Testers within the Iteration will execute as much functional testing as possible
- Collaborate with product owners proxy to clarify any user story questions
- Identify any defects or carry forward tasks
- Support the Demonstration and Retrospective



▪ The Validation (QA) team

- Select the stories from the completed development Iteration (may create integrated Stories)
- Break the story into testing tasks and estimate hours
- Develop and Execute the test cases for newly introduced “integrated” functionality
- Regression Tests & Automate Tests for regression tests
- Work with proxy product owners to clarify any user story questions
- Work with development team to identify, track and close any defects
- Report the test results



DaikiboSM Team Alignment

- **Three teams are created**

- » Concept – story authors
- » Delivery – developers + testers
- » Validation – testers

- **Team Size**

- » Concept and delivery teams have 5-9 people
- » There is on validation team that can have up to 15 people
- » Adjustments need to made based on real-time data

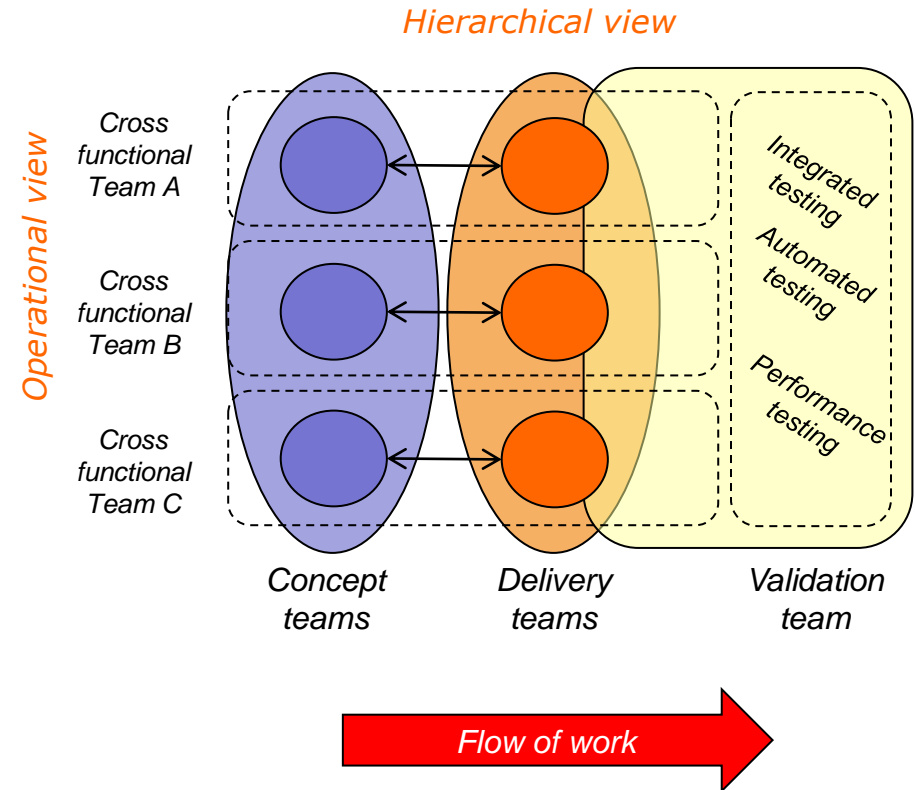
- **Team Alignment**

- » Concept and Delivery teams should be aligned by functionality
- » Cross functional groups should behave like scrum teams, with a scrum master and working together from sprint planning through to the demo and retrospective

- **Team Locales**

- » Fully distributed teams with location transparency are expected; team members may reside anywhere

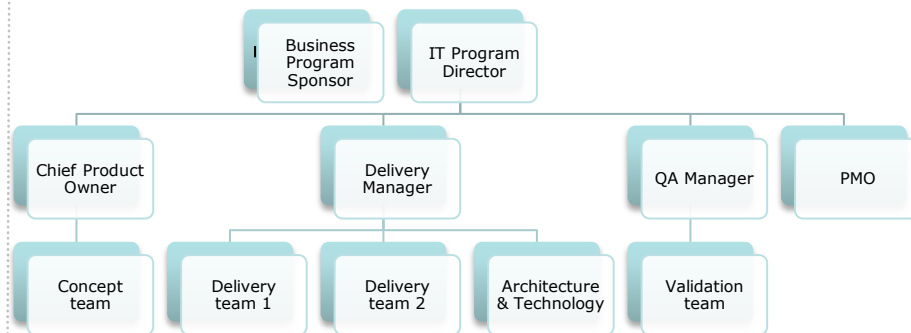
Teams aligned by functional grouping



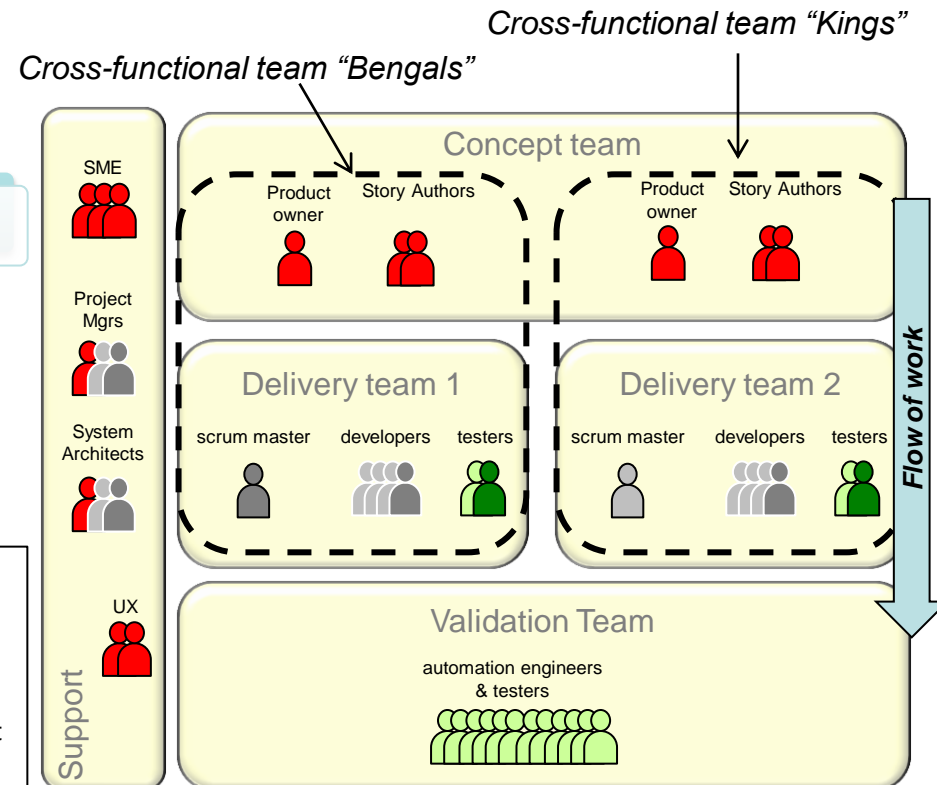
Hierarchical and Operational Views

When structuring the teams, usually that the concept, delivery and validation teams are physical entities. Cross-functional teams that behave like scrum teams are virtual, but they behave as unit and work together daily. (It is also possible to make the scrum teams physical entities, and the concept, delivery and validation teams as virtual; the model still holds.)

Typical Organization Chart



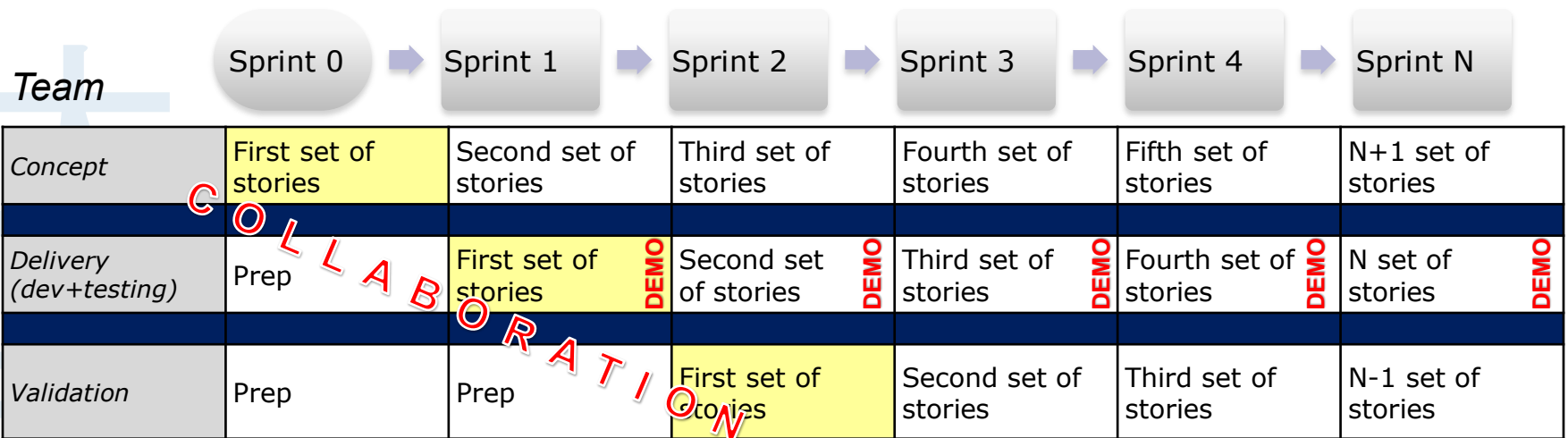
Typical Operational Structure



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The DaikiboSM Pipeline



Pipeline Approach

1. The concept teams produce stories in the leading sprint. Near the end of the leading sprint, the delivery teams evaluate the stories and provide effort estimates in points. The concept teams use the effort estimates to tweak the priorities of the stories.
2. The delivery teams have a sprint planning session on the first day of the new sprint. They review the prioritized stories and commit to completing a number of them. The concept team starts to produce the next set of stories.
3. After the stories have been tested and accepted by the story owners, the new functionality is demonstrated. In the following sprint, the system integration testing group performs more tests and validates the integration with other systems.



Sprint Close-up by Team

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
	Wed	Thu	Fri	Monday	Tue	Wed	Thu	Fri	Mon	Tue
Product Owner (concept Team)	Sprint Planning Story creation process	Story creation process; Attend story review Dev team discovery	Story creation process; Attend story review Dev team discovery	Story creation process	Inquire about when to expect to accept story; Story creation process	Accept stories; Story creation process	Accept stories; begin prep for Demo; Story creation process	Accept stories; prep for Demo Prepare for next Sprint Planning	Accept stories; prep for Demo Prepare for next Sprint Planning	Accept last stories; Drive Demo ; attend concept teams retro
Delivery Team developer	Sprint Planning Create technical designs	Create technical designs; Drive story reviews	Drive story reviews; development begins	Development Unit testing, fixing defects	Development Unit testing, fixing defects	Development fixing defects; peer reviews	Development fixing defects; peer reviews	Development fixing defects; peer reviews	Development fixing defects; peer reviews	Demo ; attend delivery team retro
Delivery Team testers	Sprint Planning Build Sprint test plan	Attend story reviews; build test cases	Attend story reviews; build test cases	Test prep; execute test cases	Test prep; Execute test cases	Execute test cases	Execute test cases	Execute test cases	Execute test cases	Demo ; Complete testing; attend delivery team retro
Other		Estimation					Estimation			

- ✓ Scrum meetings every morning for each team. Post Scrum meetings. Use of Proxies
- ✓ Other key meetings, such as the operating committee needs to be considered.



Additional Roles

Delivery Manager

- Administrative, hierarchical role for all resources on the teams
- Responsible for staffing: onboarding and replacements

Product Owner Proxies (POPs)

- Collaborates with Product Owner on release date, user stories and functionality
- Prefer Business Analysts to play this role as a dual role
- Should have business domain mastery and Agile background
- Great if they have specific system or business knowledge for “target company”
- Facilitator and daily interaction with scrum teams
- Accepts or rejects work results from offshore team
- Demonstrates “ALL” functionality and Negotiates acceptance from onsite team
- Communicates to onsite Scrum of Scrums

Scrum Masters

- Sometimes called Scrum Coordinators at offshore
- Same responsibilities as onsite Scrum Masters



Metrics

- ✓ Daikibo uses metrics collected at sprint boundaries to provide fact-based data that can be used to support decisions to make adjustments to the team structure, the technical direction, etc.
- ✓ Metrics for Agile projects are significantly different from Waterfall metrics.
 - » Example A: team effectiveness is valued just as much as delivering the functionality on-time and on-budget
 - » Example B: trending analysis is performed on many metrics to avoid a reaction to “one bad situation” that may turn out to be an anomaly
- ✓ Reporting to everyone encourages transparency, truth and openness
 - » Example: a daily report should be created and distributed to everyone on the team, those supporting the team, and the business sponsor every day; developers should support creation of this report
 - » Management should focus on comparable metrics and trends in non-comparables



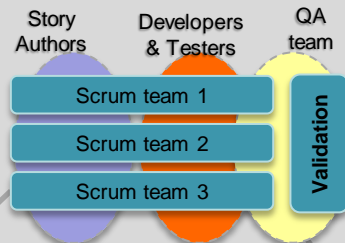
Differences between Scrum and Daikibo

- The day-to-day basis looks similar to Scrum, but there are several differences:
 - » Team structures – concept, delivery, and validation teams are different from scrum teams
 - » The Story Creation Process follows a Kanban-XP model
 - » Product Owner Proxy role – used with integrated teams
 - » Producer-consumer model and the role of metrics in decision support
 - » Three explicit types of estimation: Balanced Estimation(SM), Story Estimation and Task Estimation
 - » Separation of estimation from Sprint Planning
 - » Addition of Forecasting meetings
- It's primary benefit is that Daikibo has been designed to be scalable and enable distributed/integrated agile teams to be successful.



Scrum Teams vs Daikibo Teams

Scrum Teams

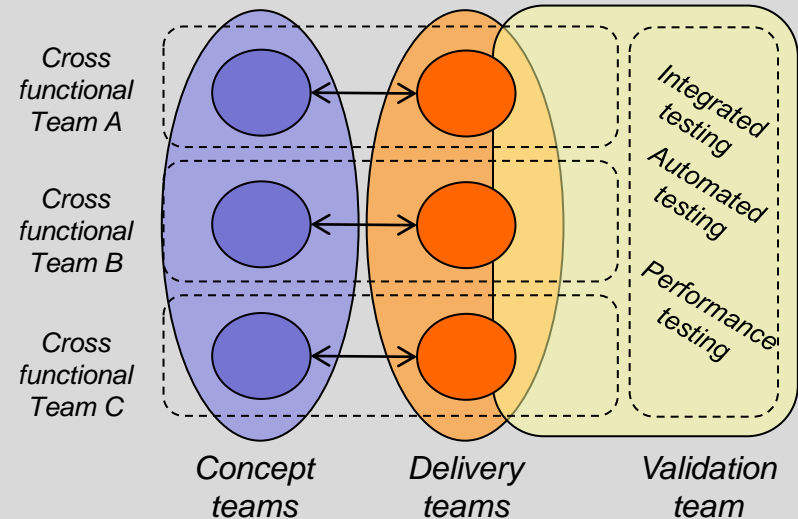


Ideal Scrum team



Daikibo Teams

Teams aligned by functional grouping



DaikiboSM Best Practices

- Focus on the Agile & Client values
- Assume the budget and time are fixed, but the detailed scope is adjustable
- Establish a Product Owner Proxy if the real Product Owner is not available
- Have **full team participation** without representatives or point-of-contact roles
- Story authoring should be a team activity – avoid solo story writing
- **Use User Stories:** well-formed following an iterative, progressive, slice-the-cake approach – avoid writing user stories in MS Excel; use MS Word if no other tool is available
- **Create vertical slices** to deliver business value with each sprint
- Perform as much functional testing within the sprint as possible
- **Share daily reports** with everyone
- Have a Daily Office “working session” after the scrum, with full team participation, to collaborate on stories and technical hot topics
- Measure flow of work across Concept teams and Delivery teams, and make real-time adjustments based upon the data
- Align Concept and Delivery teams by functional area
- Share documents to be reviewed tomorrow with the offshore team at the end of the day today
- Look for trends; don’t overreact to one ‘bad’ sprint

Recap

Today we talked about...

- ✓ Background on Daikibo
- ✓ Scalable Agile
- ✓ Daikibo Teams
- ✓ Team Alignment
- ✓ Pipeline
- ✓ Sprint Close-up
- ✓ Additional Roles
- ✓ Metrics
- ✓ Differences between Scrum and Daikibo
- ✓ Best Practices



Quick Review

1. Which role is responsible for driving the project?
 - a) The Project Manager
 - b) The Product Owner
 - c) The Scrum Master
2. Which role is responsible for reporting progress and gathering metrics on the scrum team?
 - a) The Project Manager
 - b) The Product Owner
 - c) The Scrum Master
3. If the team has NOT completed all their committed work by the last day of the sprint, the team should...
 - a) Extend the length of the sprint by a few days to allow for testing
 - b) Admit they failed to deliver, discuss the circumstances and learn from them so they can do better in the next sprint
 - c) Have a change control meeting to discuss reducing the scope of the current sprint
 - d) Add a couple of senior team members to rescue the team and avoid the embarrassment of failing to deliver
4. When a developer is pulled from the team in the middle of a sprint to fix a production issue, and cannot complete the functionality on a committed story...
 - a) The team should tell the product owner that the developer is out and they won't be able to deliver that functionality in this sprint, but maybe they can in the next one.
 - b) The team should do whatever it takes to get the functionality for the committed story completed before the end of the sprint with the remaining team members
 - c) The team should admit failure on this sprint and then blame the developer for causing them to fail.
5. Who are the chickens supporting a scrum team?
 - a) Project Managers, Scrum masters, and Product Owners
 - b) Product Owners, Story authors, developers, and testers
 - c) SMEs, Project Managers, and Architects



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