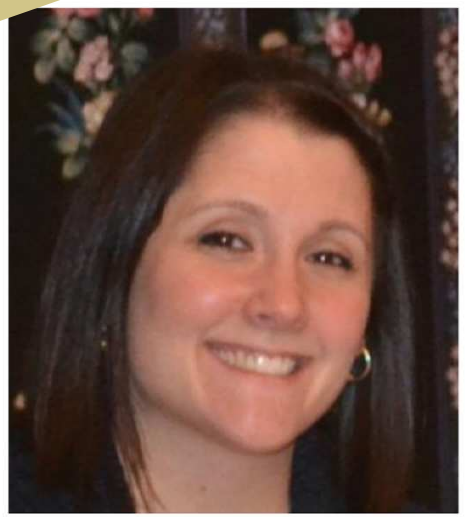
European Lean IT Summit

13 & 14 october, 2011

Paris, France

Transition from “Scrum” to Flow

Implementing change at a large multi-national software company



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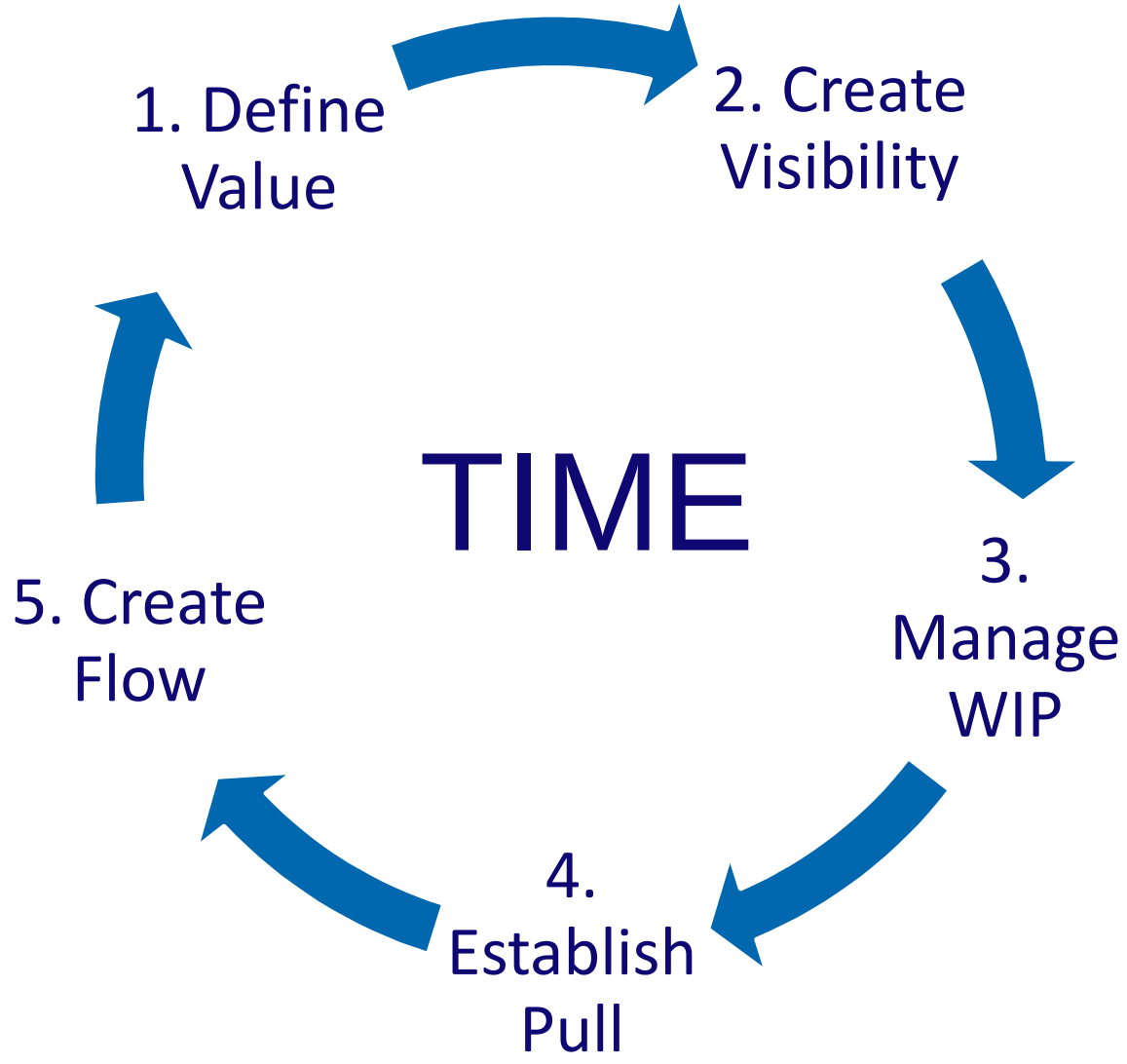
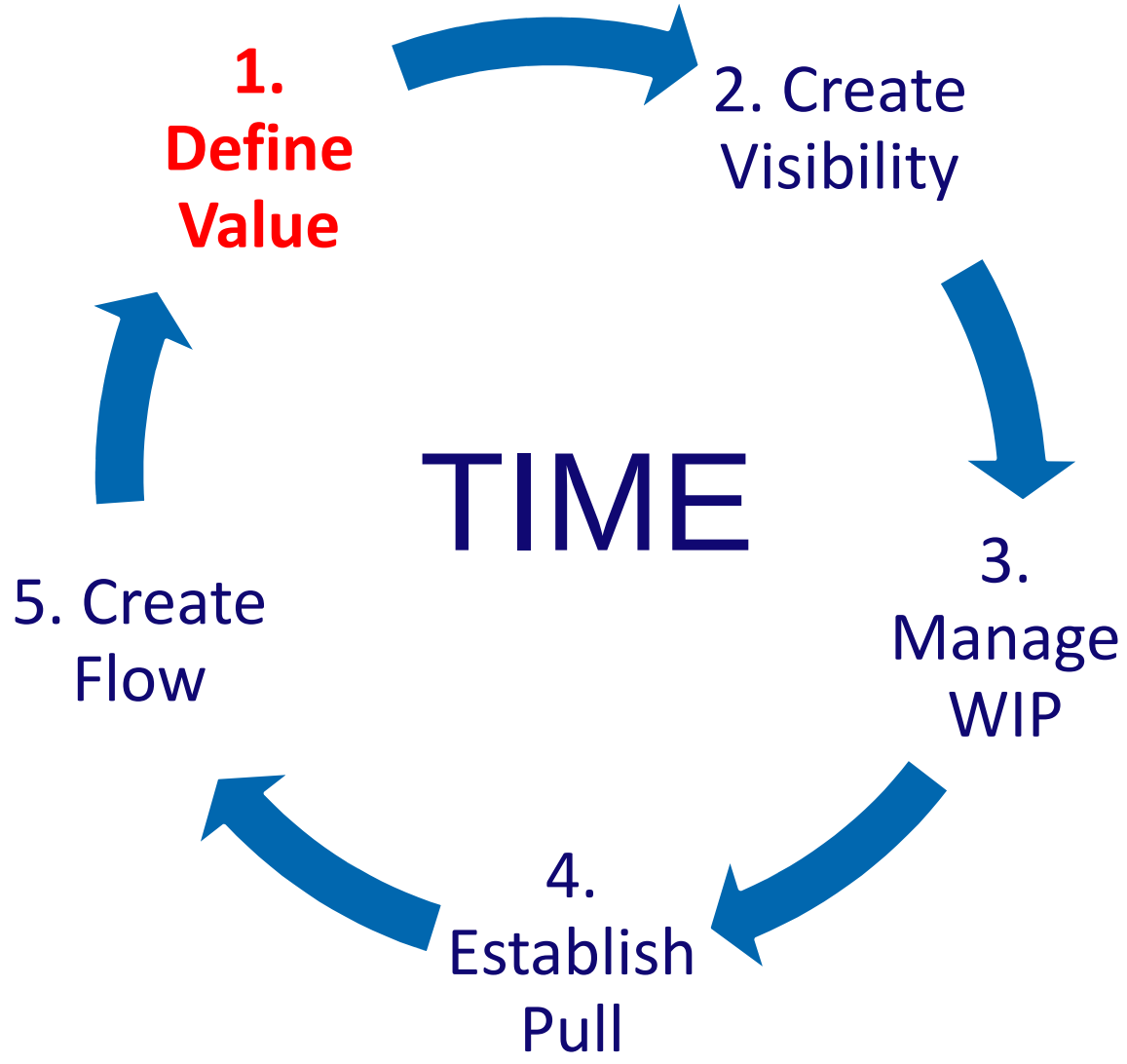
Introducing

XBOX LIVE

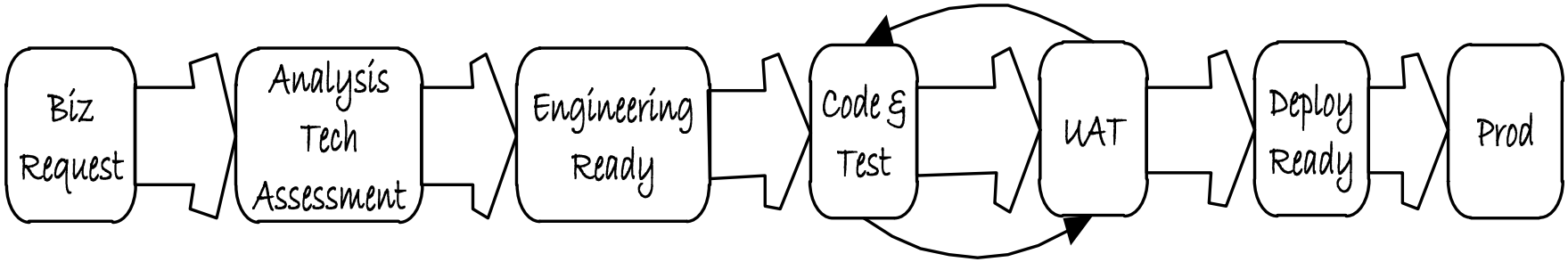
IEB

Microsoft game studios





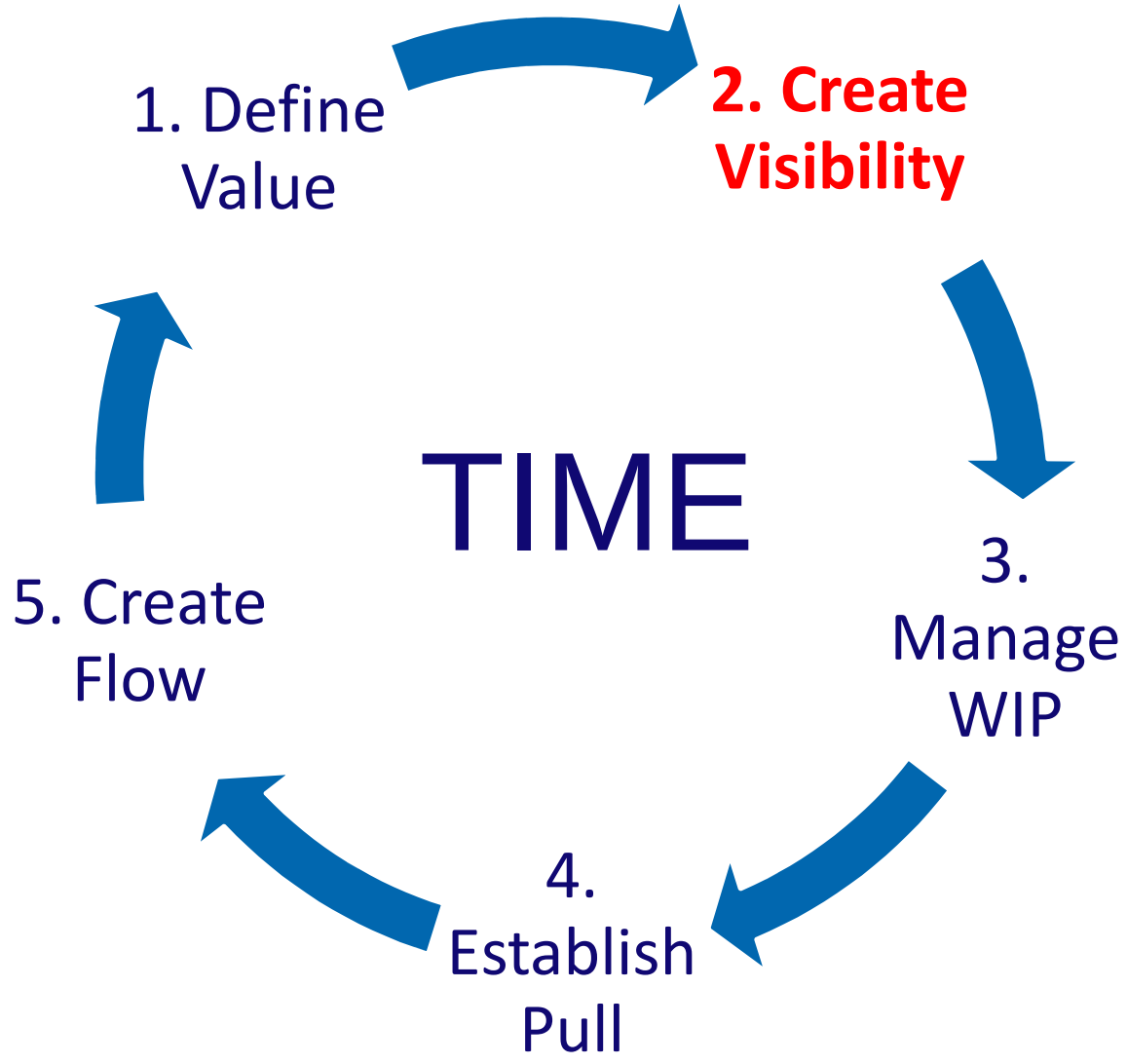
Business Capability Value Stream

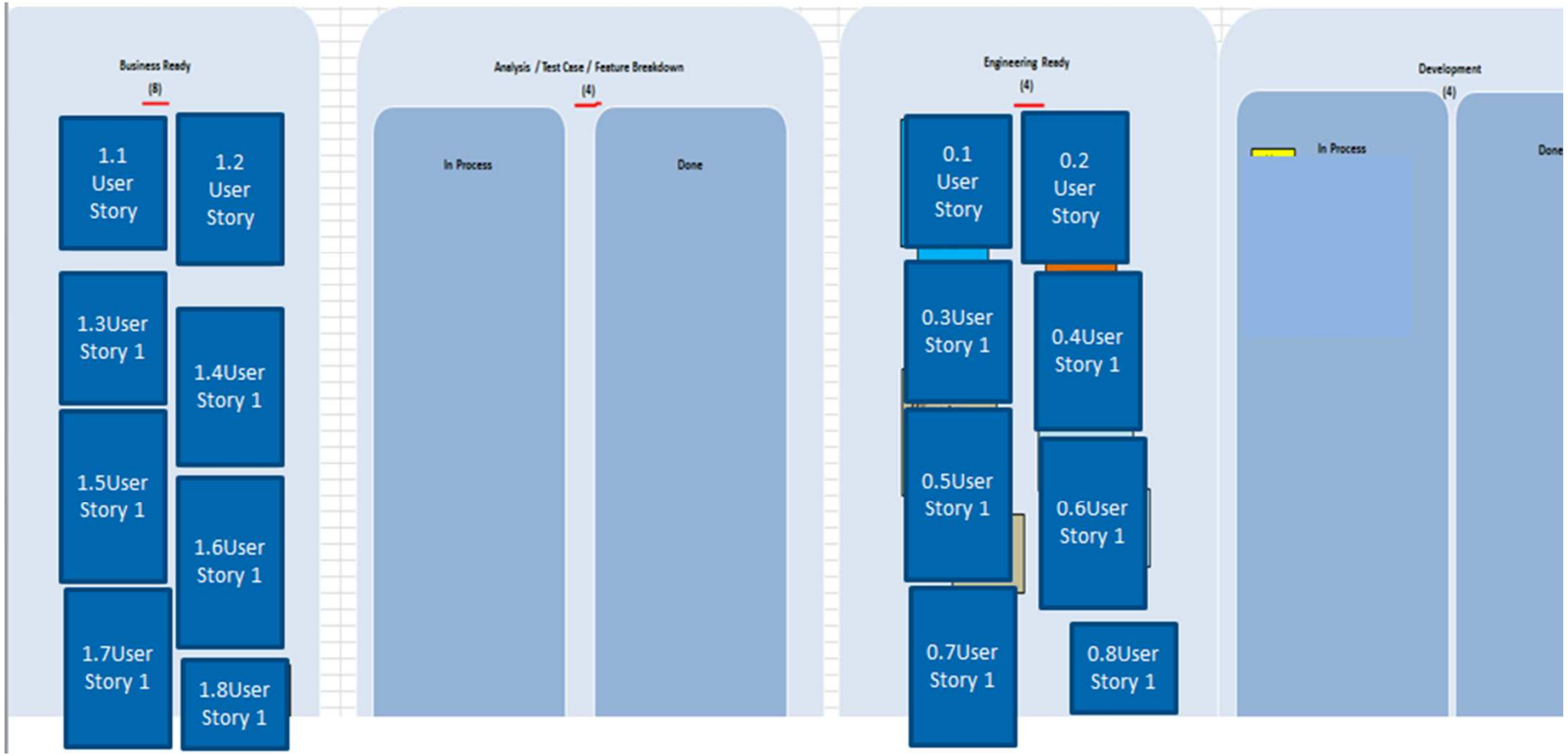


Activity towards success

Who works these activities?

Upon what do we focus?





Stories Overview

Helps you track how far each user story has been implemented. Shows each story's actual number of hours of work remaining and completed, its acceptance test results, and the number of bugs that are linked to each story.

Related Reports

- Bug Status
- Status on All Iterations
- Stories Progress
- Test Case Readiness
- Test Plan Progress

Completed
Remaining

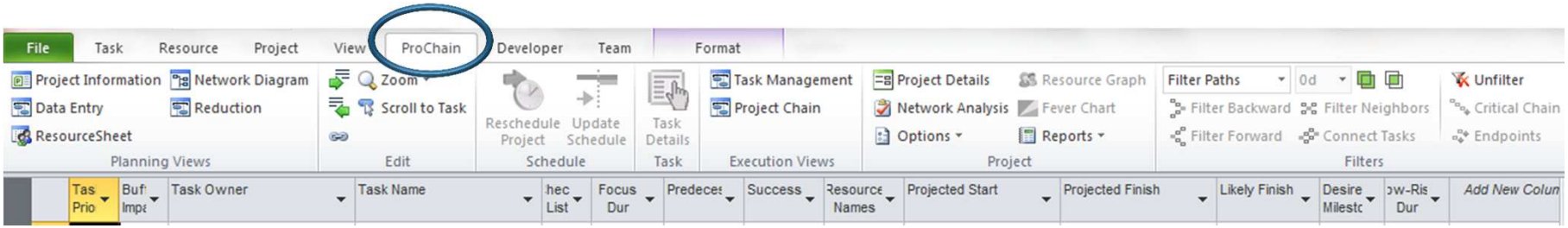
Passed
Failed
Not Run
Active
Resolved

Title	Work Progress: % Hours Completed	Work Progress: Hours Remaining	Test Status: Tests	Test Status: Test Results	Test Status: Bugs
As a new customer, I want to order a meal.	80 %	6634	3	33 % 55 %	1 2
As a customer, I want to track my order history.	79 %	14053	0		6
Enable selection based on strength, intelligence, etc	19 %	144	2	48 % 52 %	1 2
As a returning customer, I want to order one of the meals that I've recently ordered.	78 %	17	2	48 % 52 %	
As a new customer, I want to choose a meal from a specific provider.	80 %	42	0		
As a customer, I want to save orders.	80 %	9432	0		
As an event planner, I want to let participants in my event choose meals from Dinnerflow.	17 %	298	2	33 % 53 %	
As an event planner, I want to filter the menu to meet my constraints so that I can control the cost of the meals or so that I can offer only meals that are appropriate for the event.	40 %	126	0		
Gold member can search for villians	79 %	724	2	33 % 53 %	1
As a returning customer, I want to be able to override my default location so that I can order from Dinnerflow when I'm on the road.	35 %	110	0		
As a delivery provider, I want orders to be submitted to my business at least 45 minutes before we pick the order up from the provider so that we can optimize the delivery.		28	0		
As a delivery provider, I want to provide a premium just-in-time service so that customers can decide at the last minute to order from Dinnerflow.		0	0		
As a delivery provider, I want Dinnerflow orders submitted to my dispatch system so that the cost of handling Dinnerflow orders is minimized.		0	0		

CCPM

Critical Chain Project Management (CCPM) is a Project Management process to help:

- Identify bottlenecks at planning and during execution
- Drive focus towards critical few to manage the uncertainties
- Show IMPACT to due date



CCPM Sample

Scope: XXXXXXXXXXXXXXXXXXXX

Buffer Recovery Action Plan

Action	Who	When
Complete remaining testing and give test signoff by Monday	Team Member	5/16

Headwind

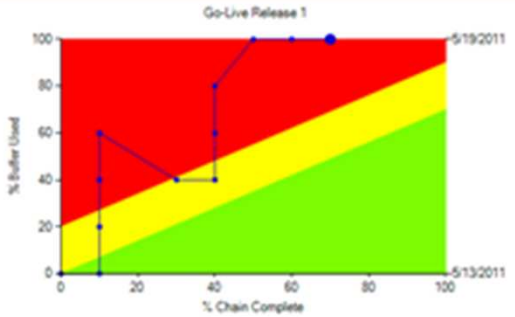
Red – Issues currently faced. Help needed
Blue: Issues faced and overcome

1. CAB related issues for Release 1 deployment. (may need GM approval)
2. Exception Handling for invalid arguments call by MSDN (Resolved)
3. SSL implementation.

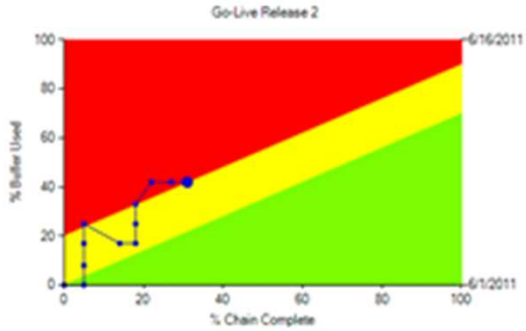
Tailwind:

Items that helped make progress

1. Thanks to whole team for a highly productive week (Larry worked over last weekend).
2. High CI Code coverage at around 90%
3. Dev. and Test teams completing critical tasks within aggressive duration

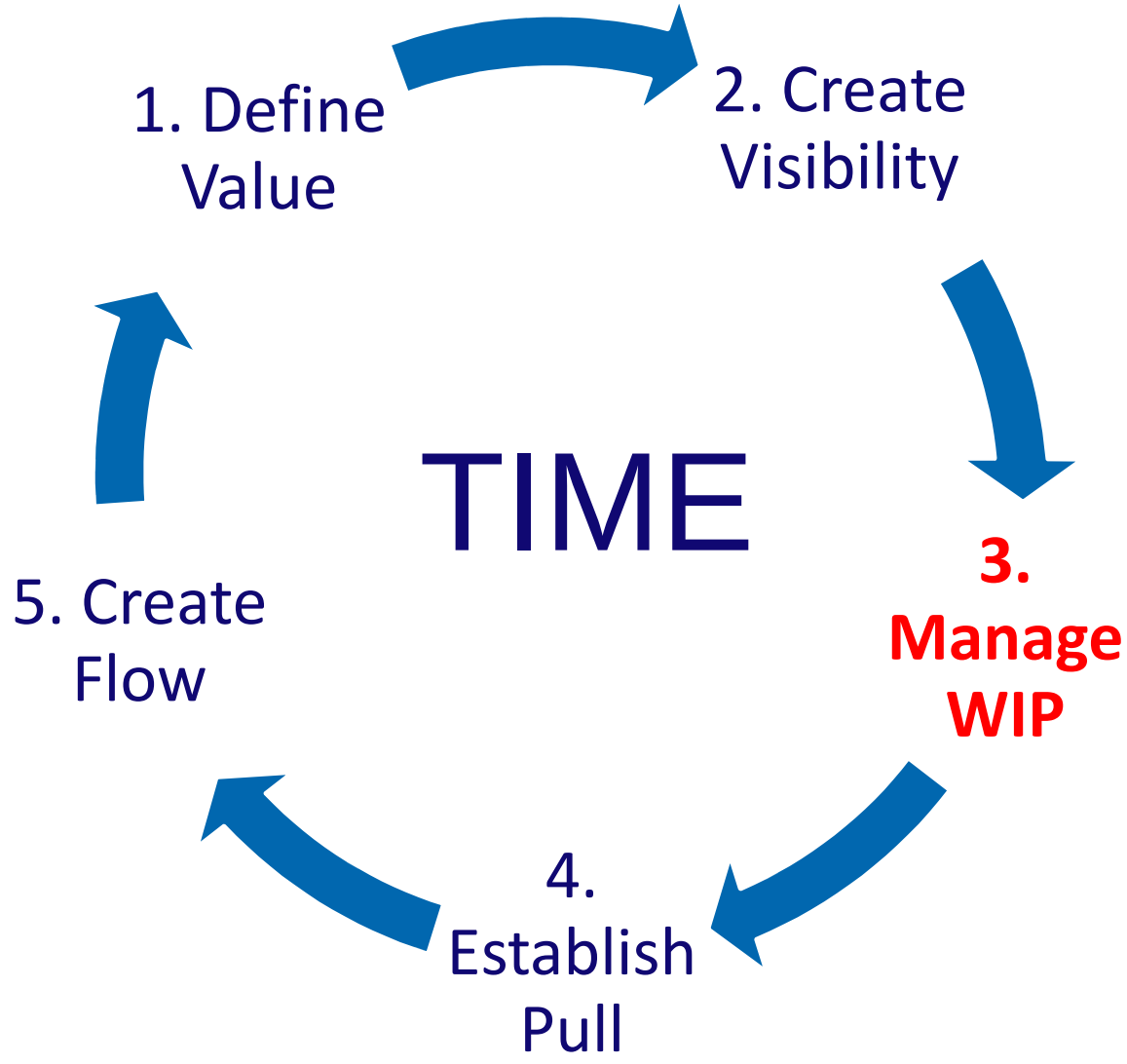


Status Date: May 13, 2011
Projected Go-Live: May 19, 2011

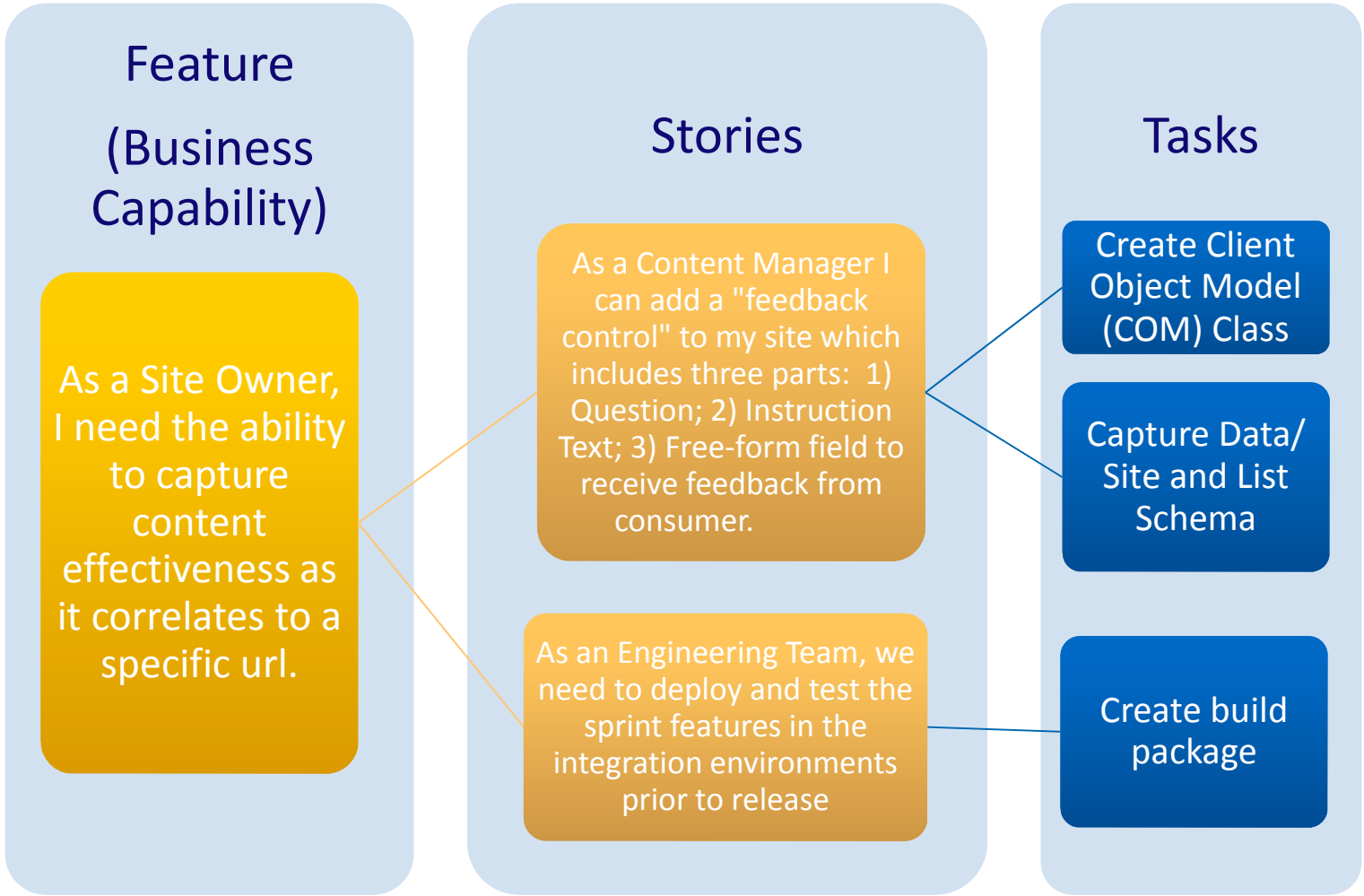


Status Date: May 13, 2011
Projected Go-Live: Jun 16, 2011

Manage WIP



Work Breakdown



Process Thinking

Activity-driven vs. Value-driven

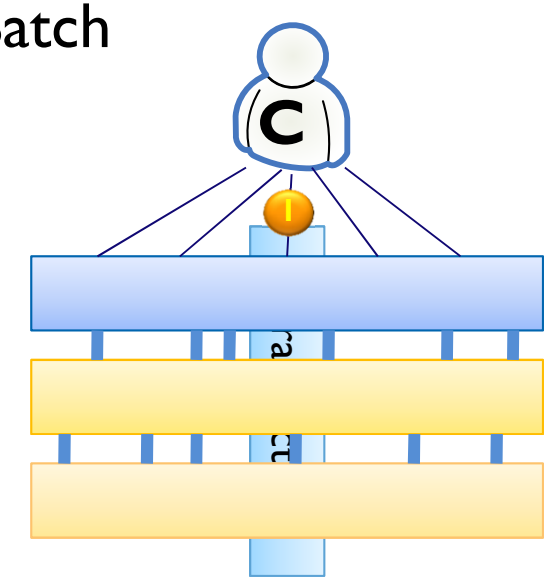
BIG Batch

Activity

Test

Develop

Design



small

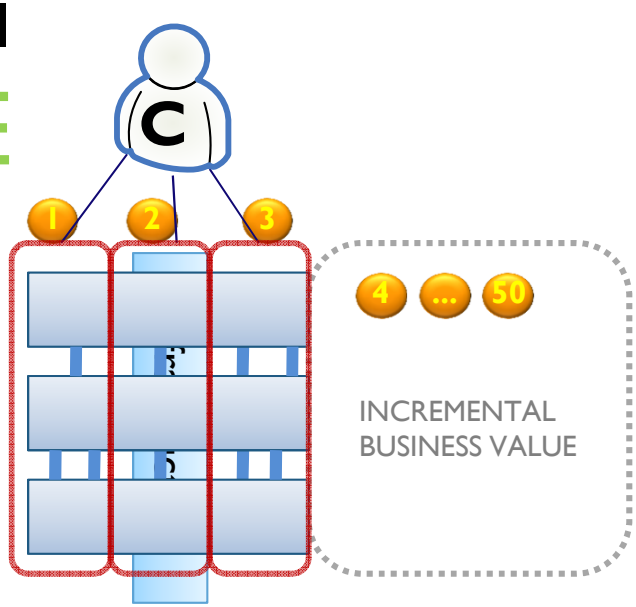
Incremental

VALUE

Test

Develop

Design

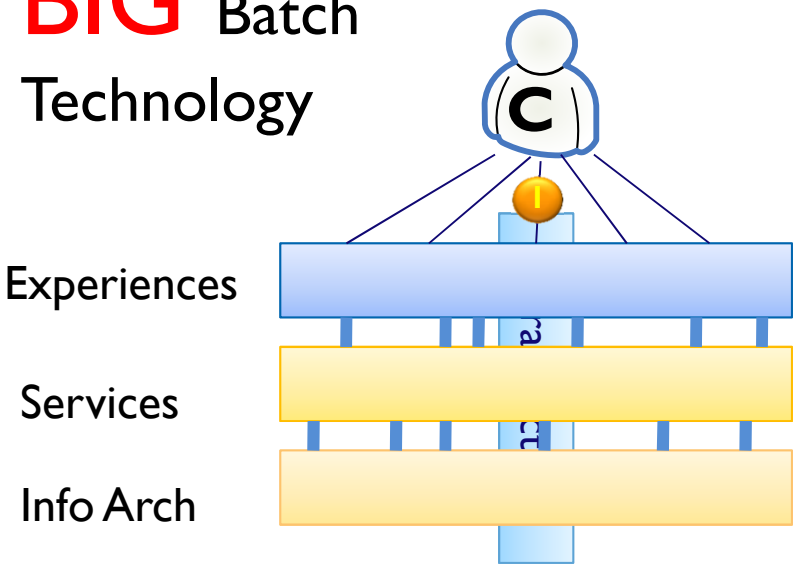


Feature Thinking

Batch-driven vs. Scenario/Feature/Deliverable-driven

BIG Batch

Technology



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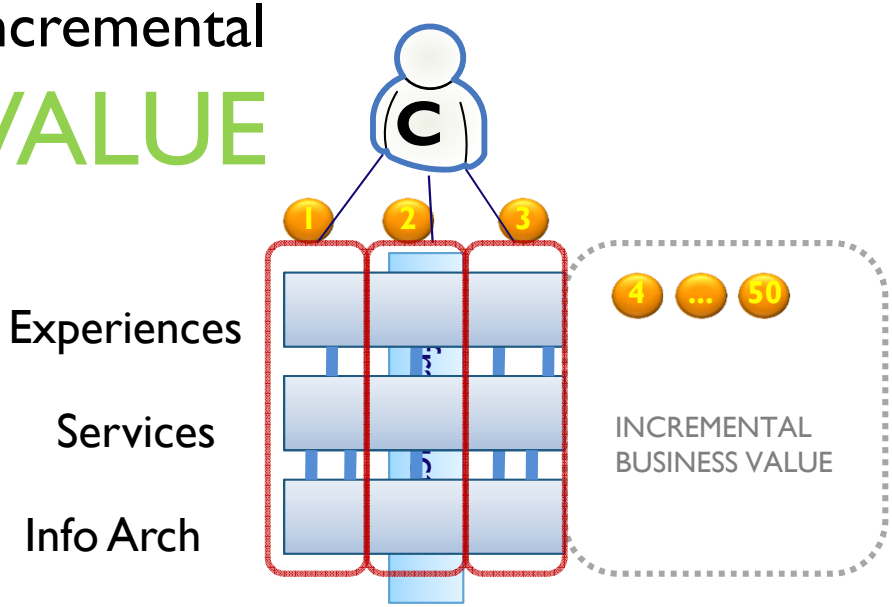
Incremental

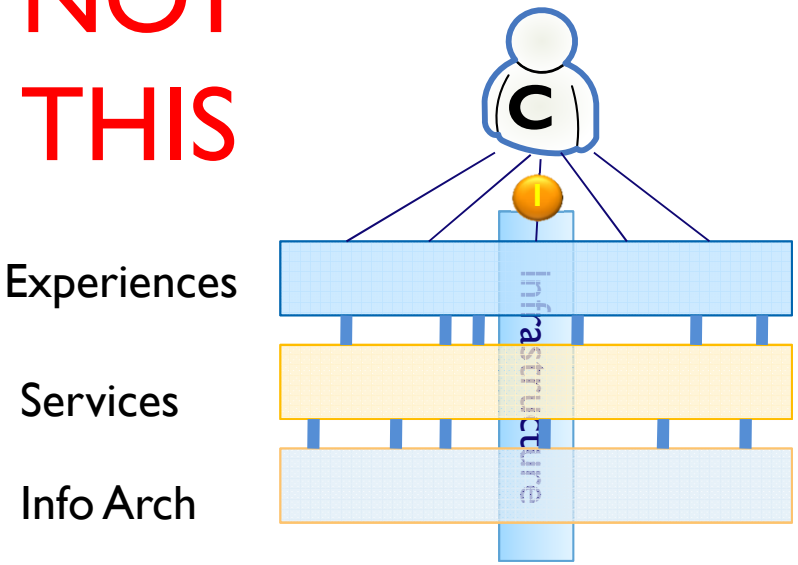
VALUE



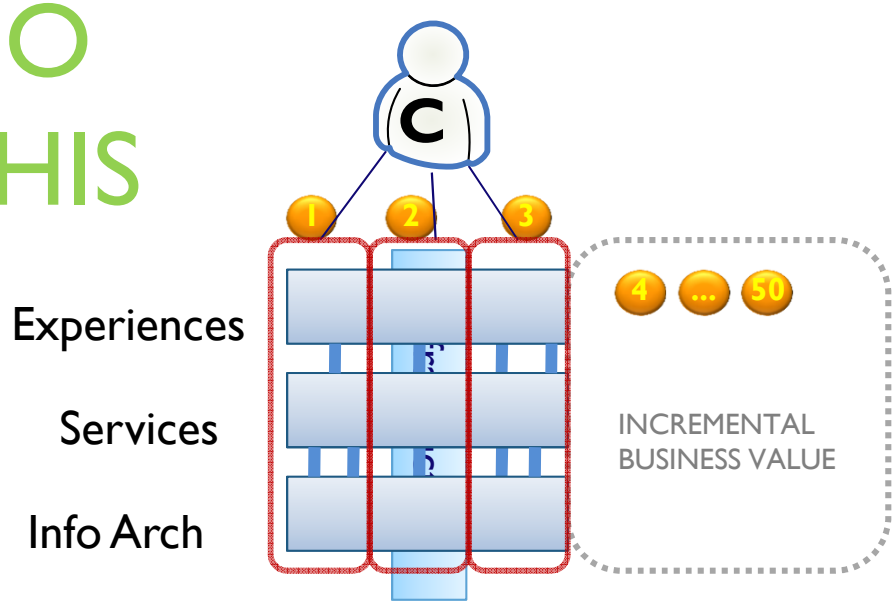
Incremental Business Value

Focus on Business FEATURE Slices ... NOT technology layers

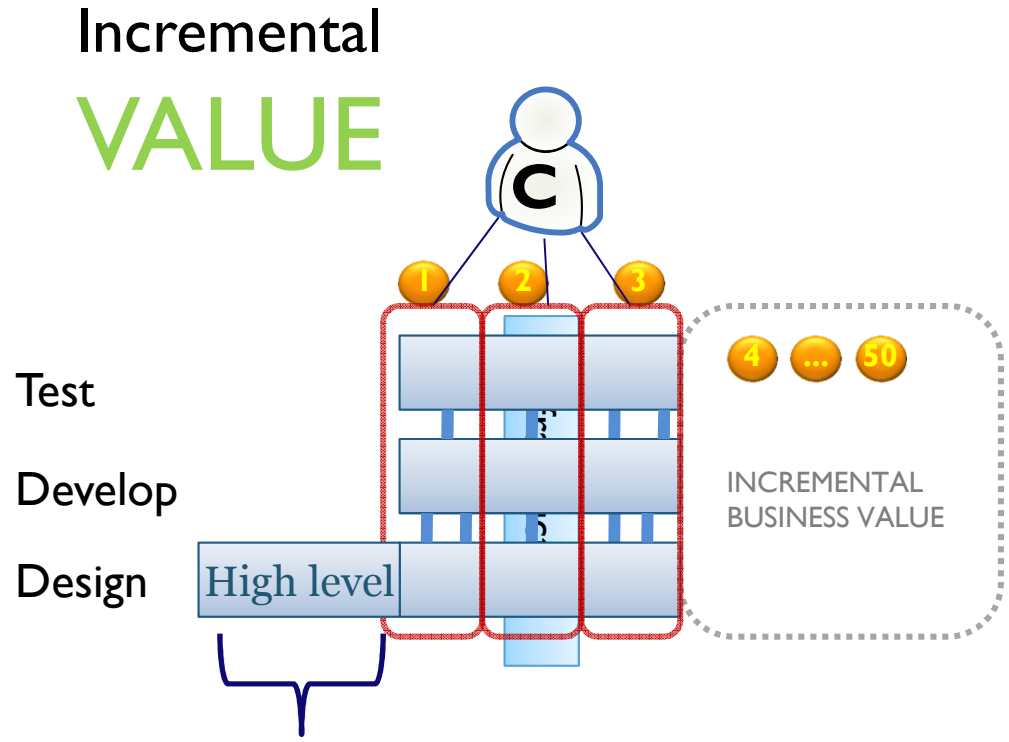
NOT THIS



DO THIS

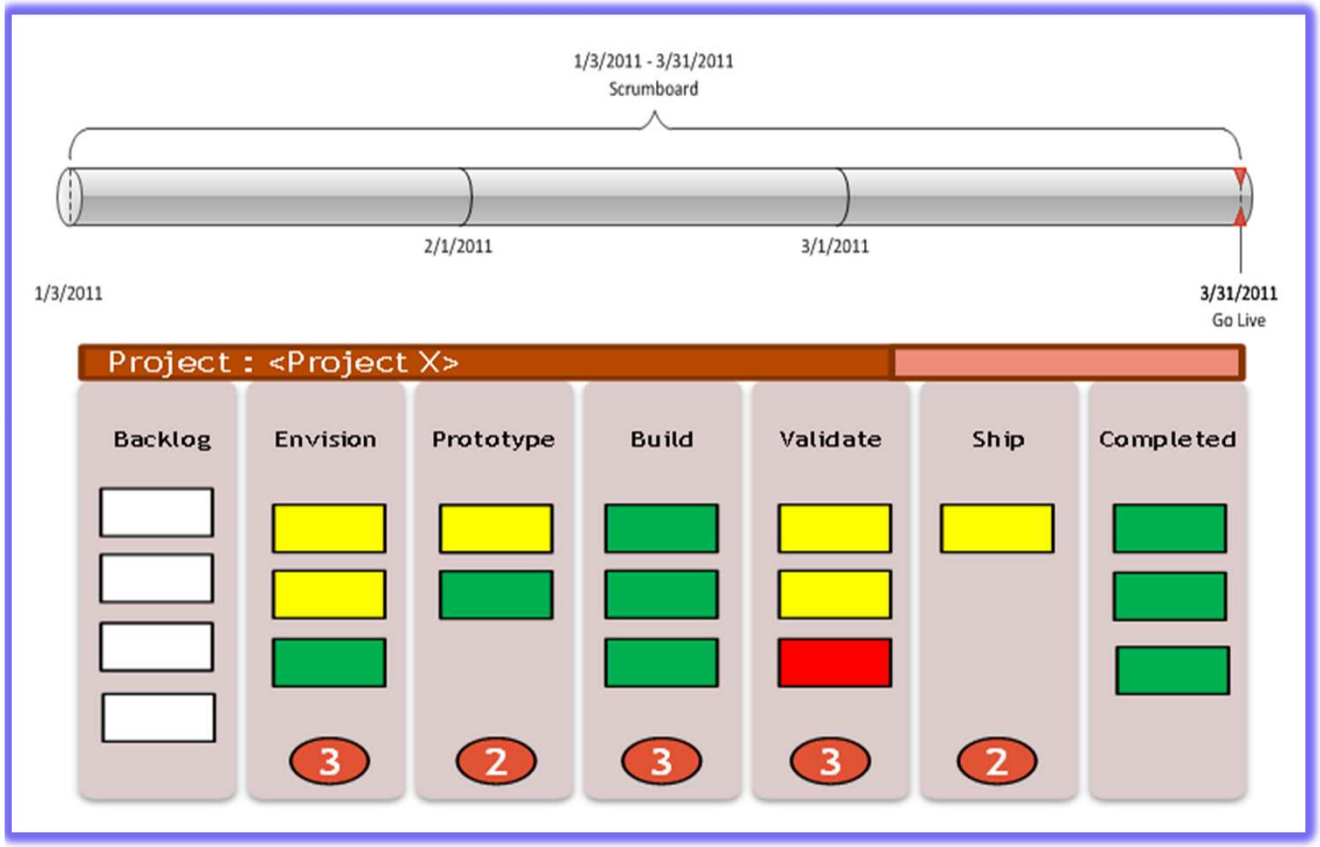


Lean Thinking

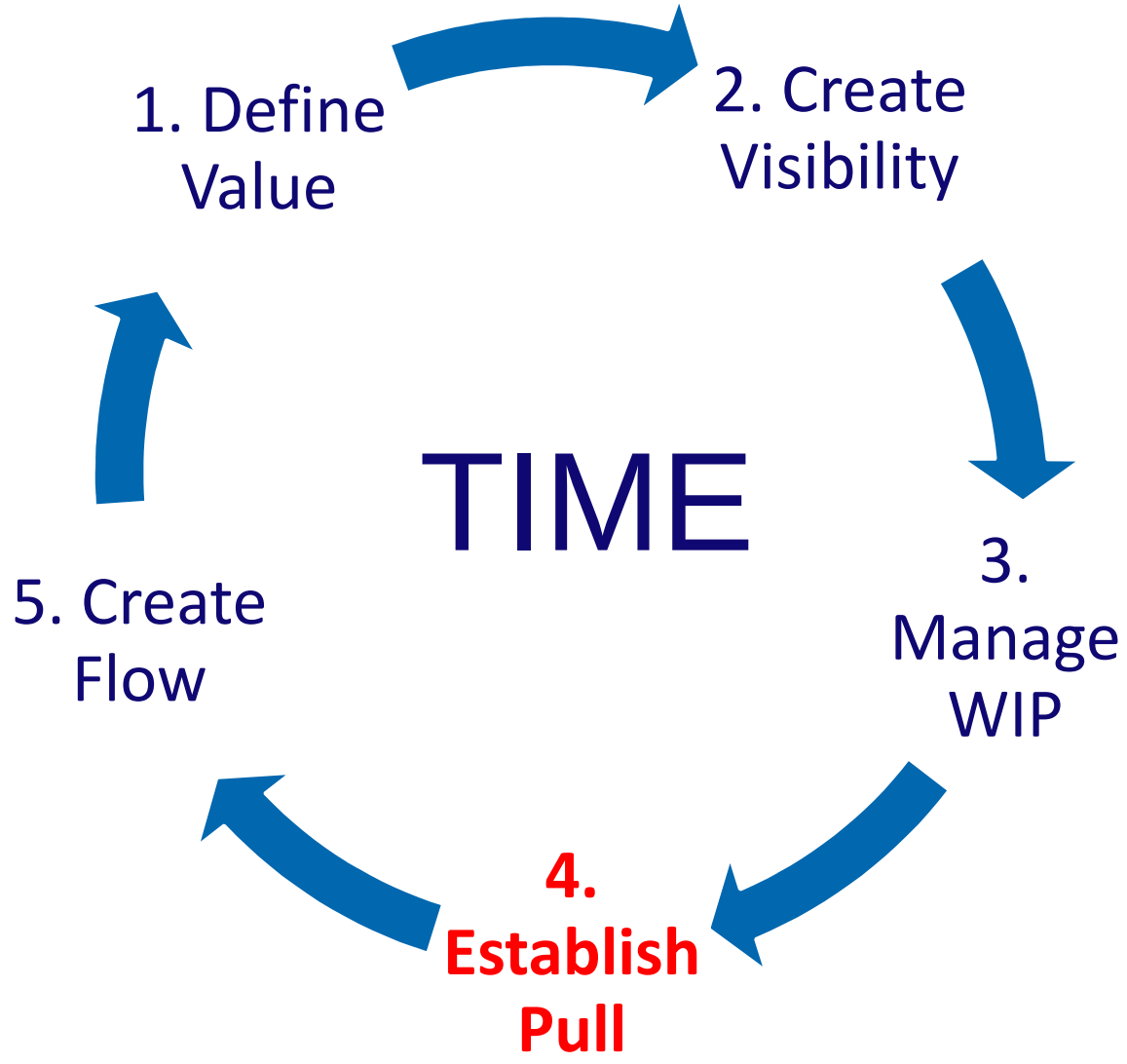


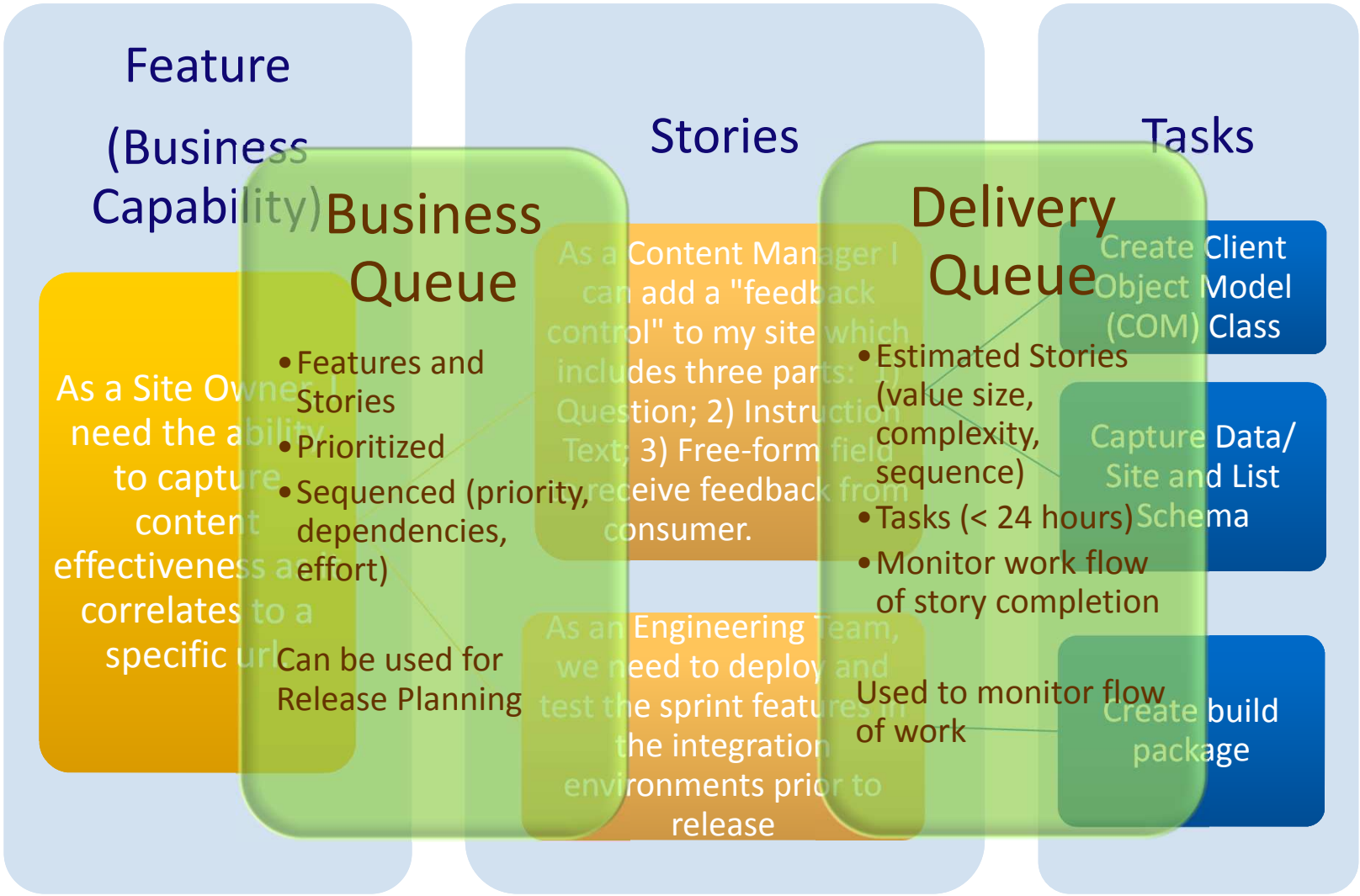
Feed partner team product lifecycle

Feature/Story Flow

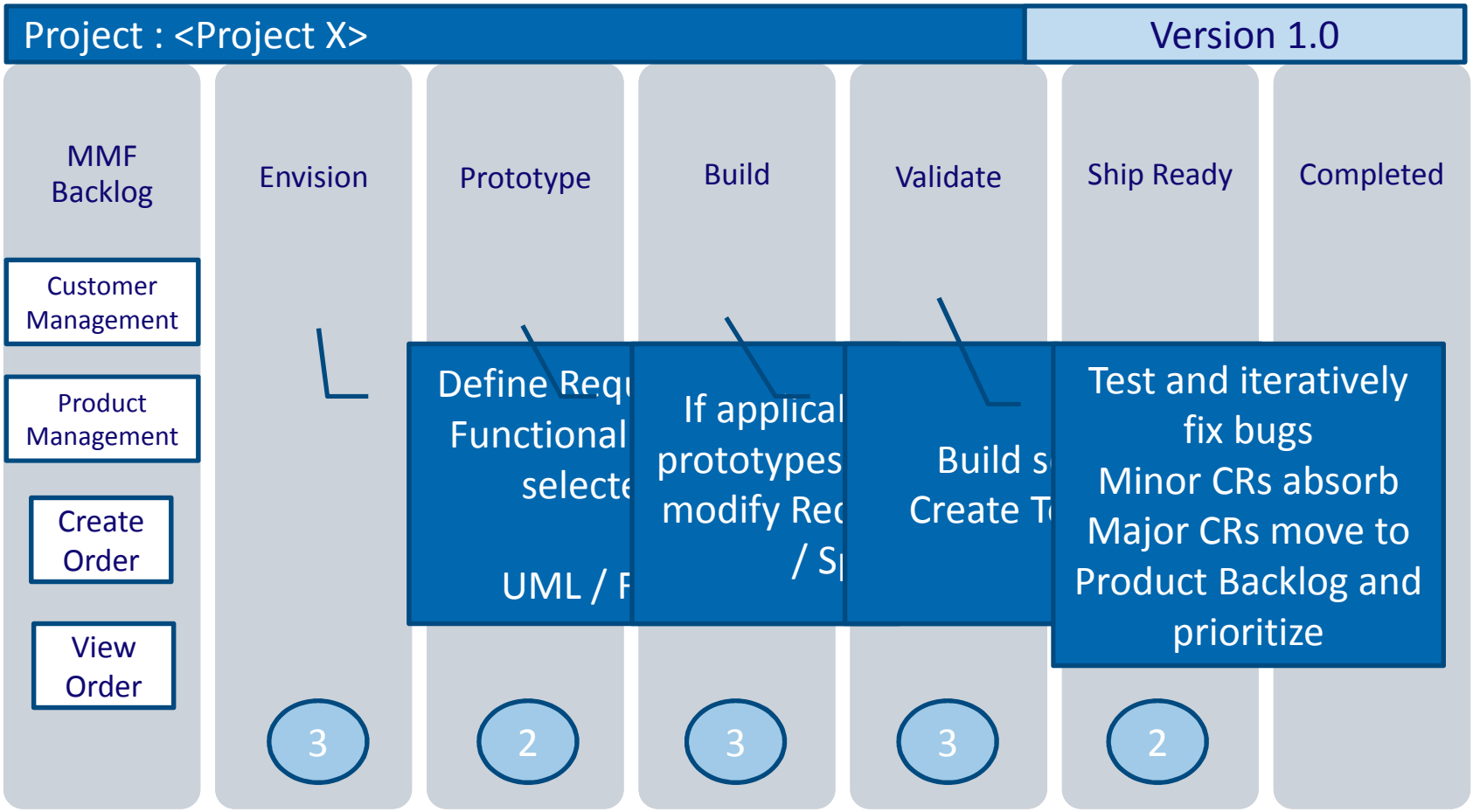


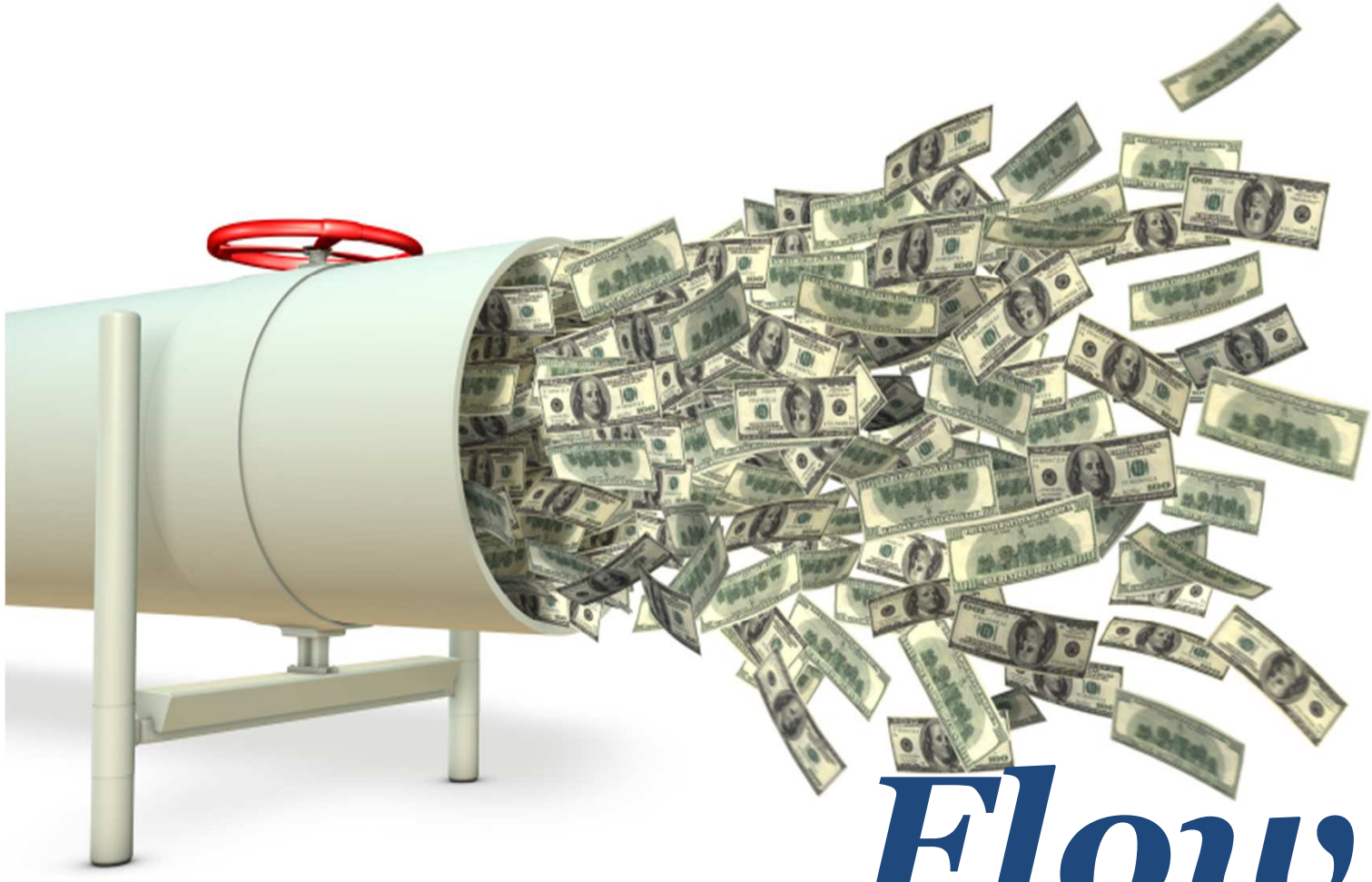
- A new story prioritization would be done at the beginning of each release and reprioritization could occur before a new story is added to Envision.
- Only items moved from Team Queue (aka. Backlog) will be worked on.
- Kanban Board visualizes the iterative nature of work and status of each story.
- Can be Envisioning for one Story and Validating for a different Story.
- Iteration Path Examples:
  Retail
  Stores/Release 1/Team Queue



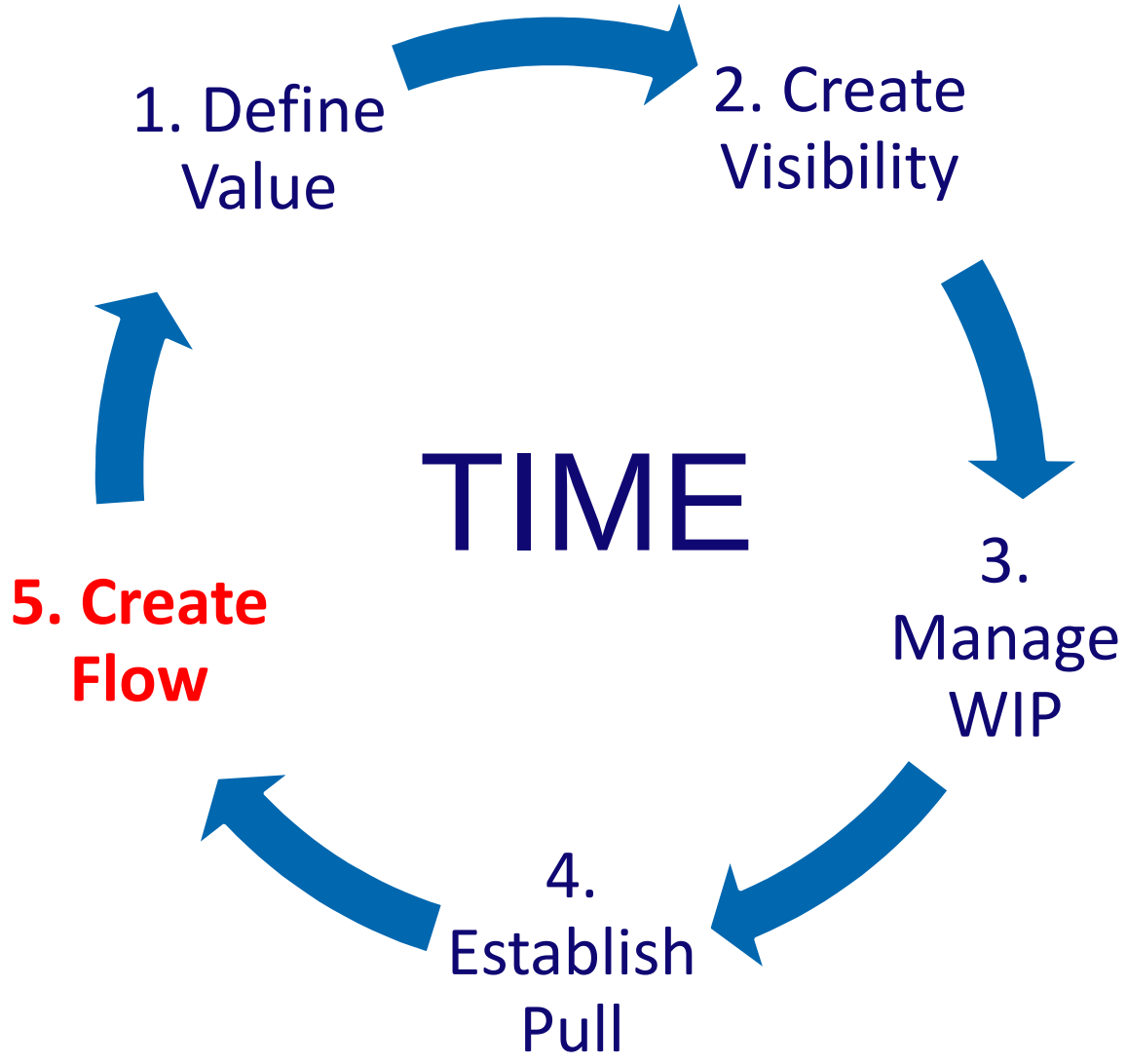


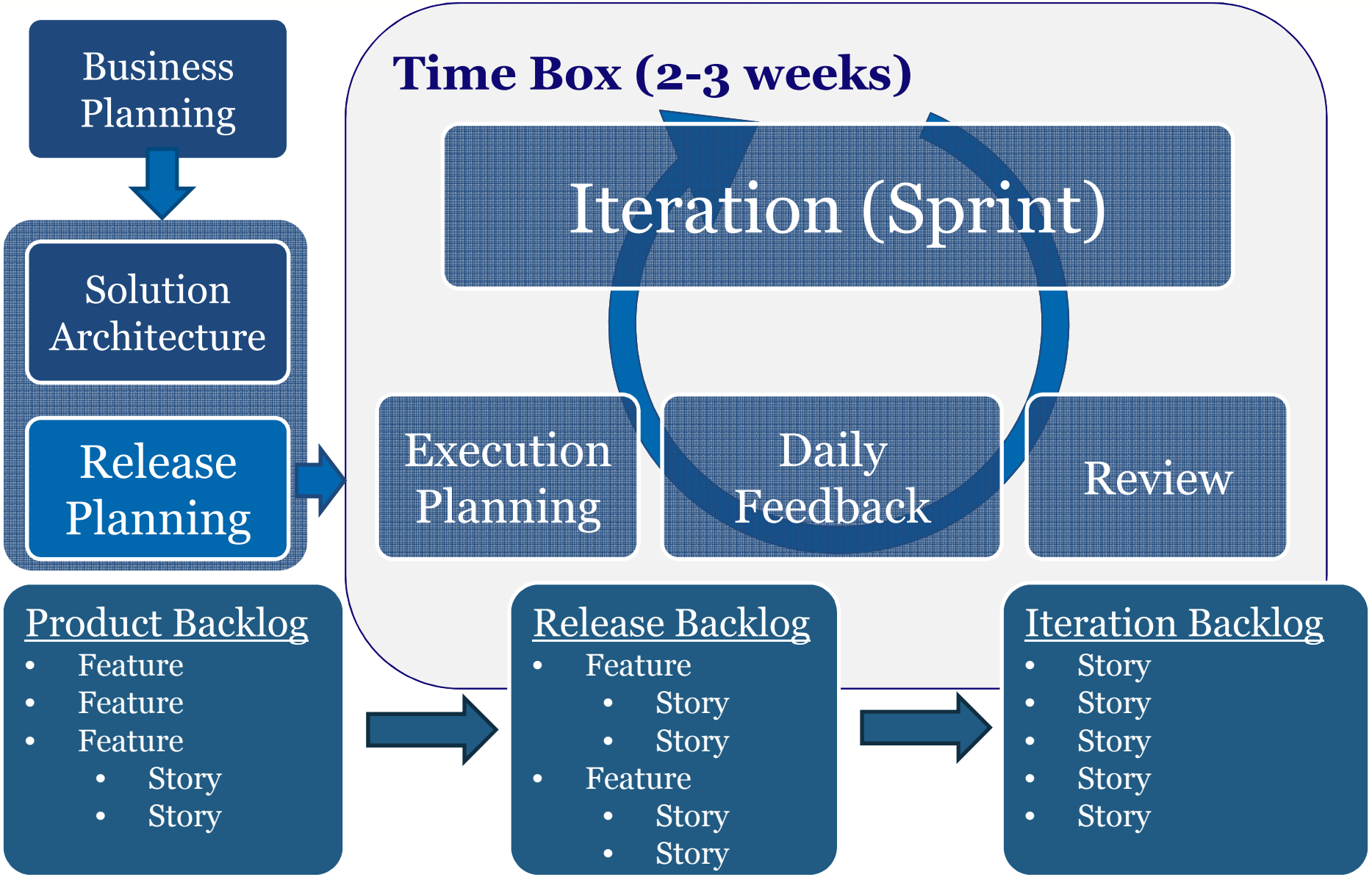
Kanban Pull/Flow

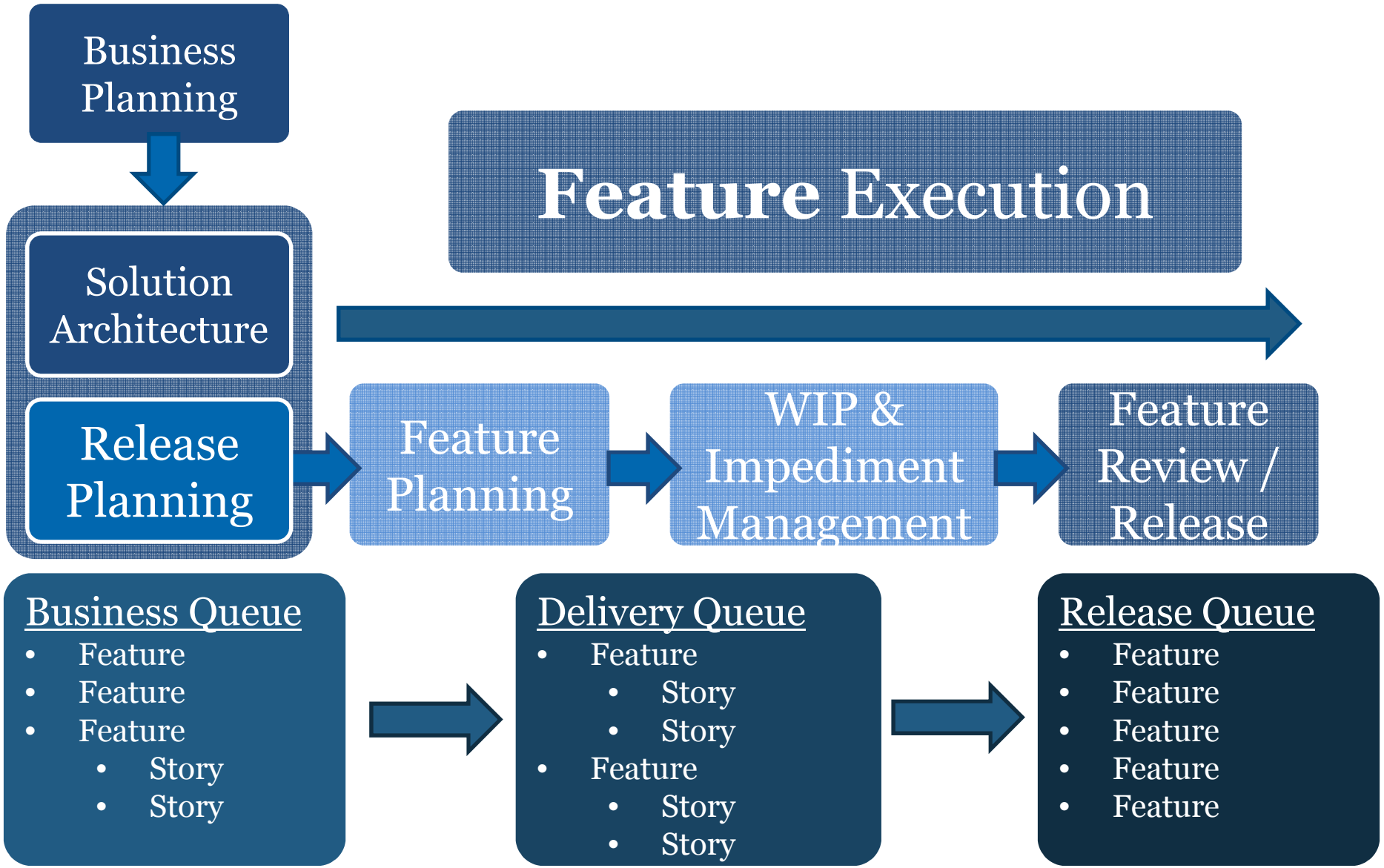




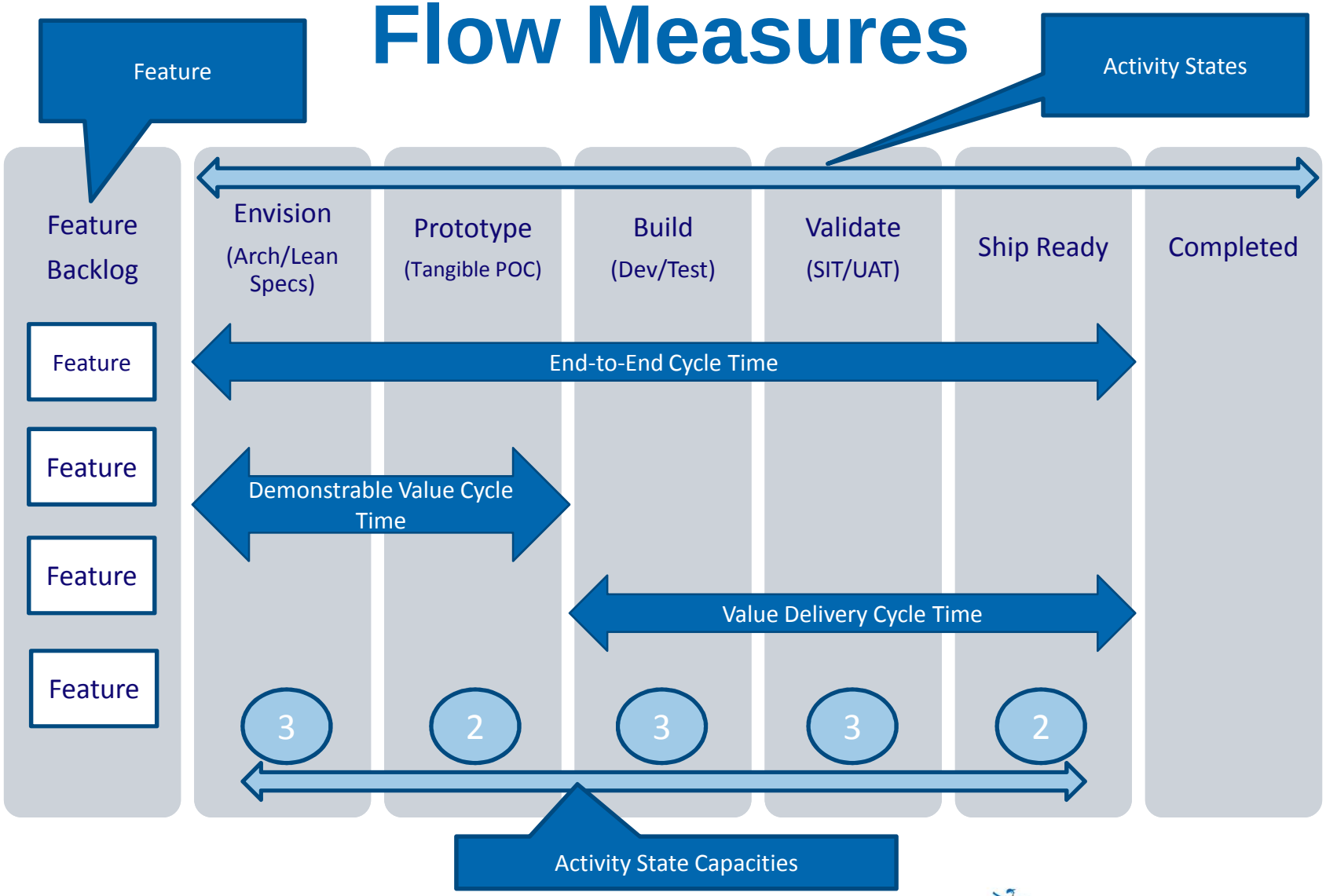
Flow



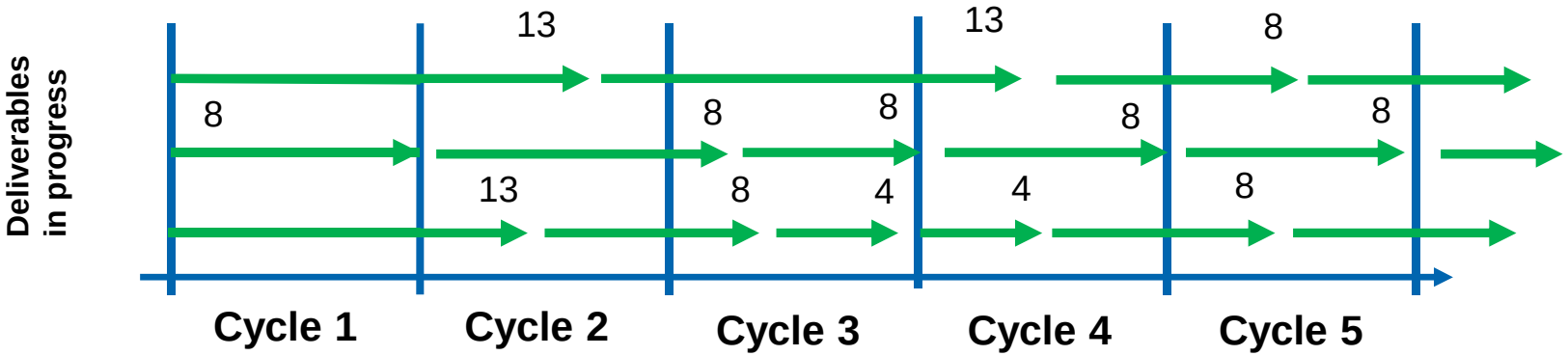




Flow Measures



Velocity / Flow / Cycle Time

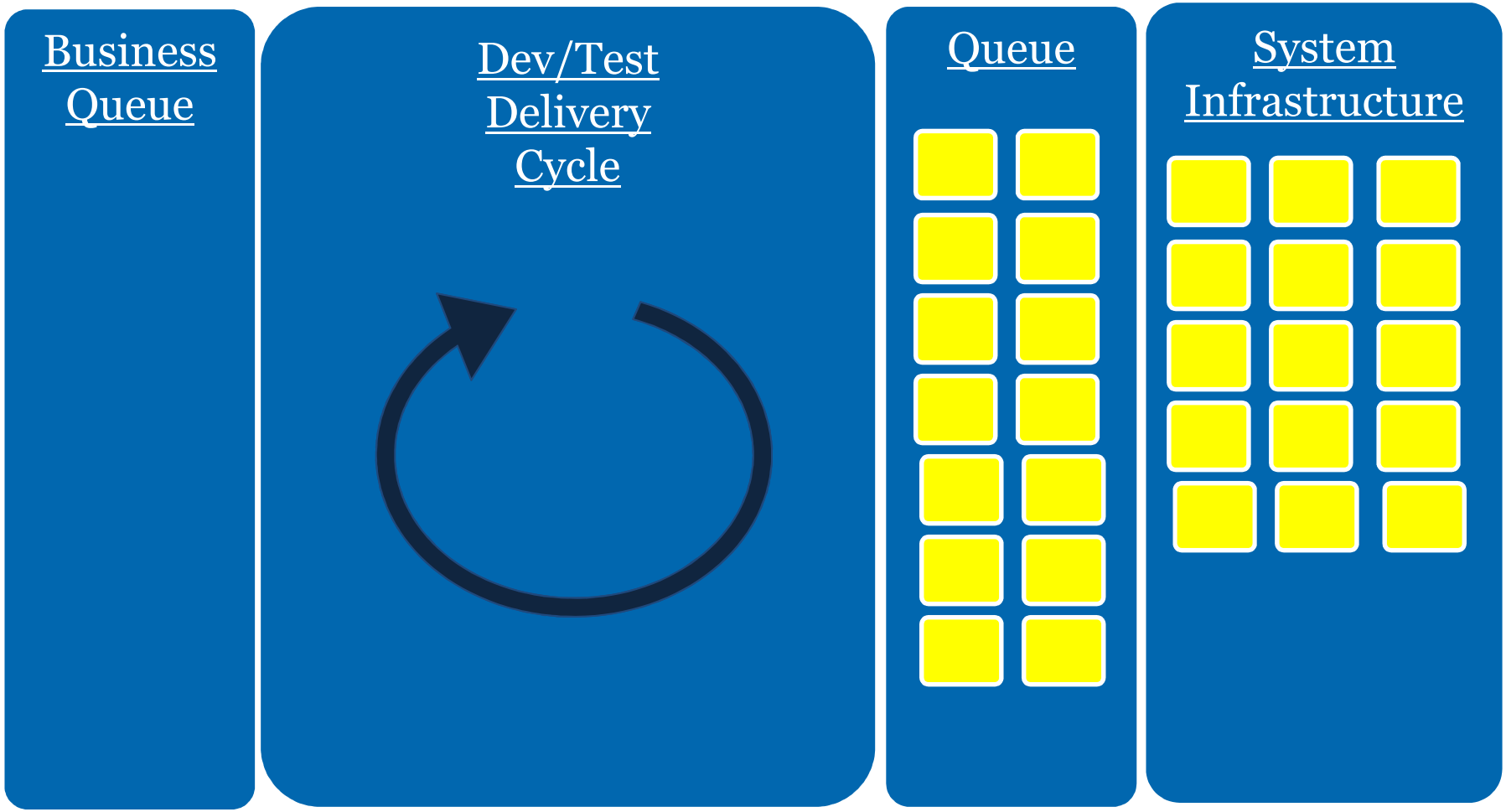


Velocity	8	26	28	25	24
Avg Velocity	-	17	23	24	24
Avg. Flow	1	2	3	3	3

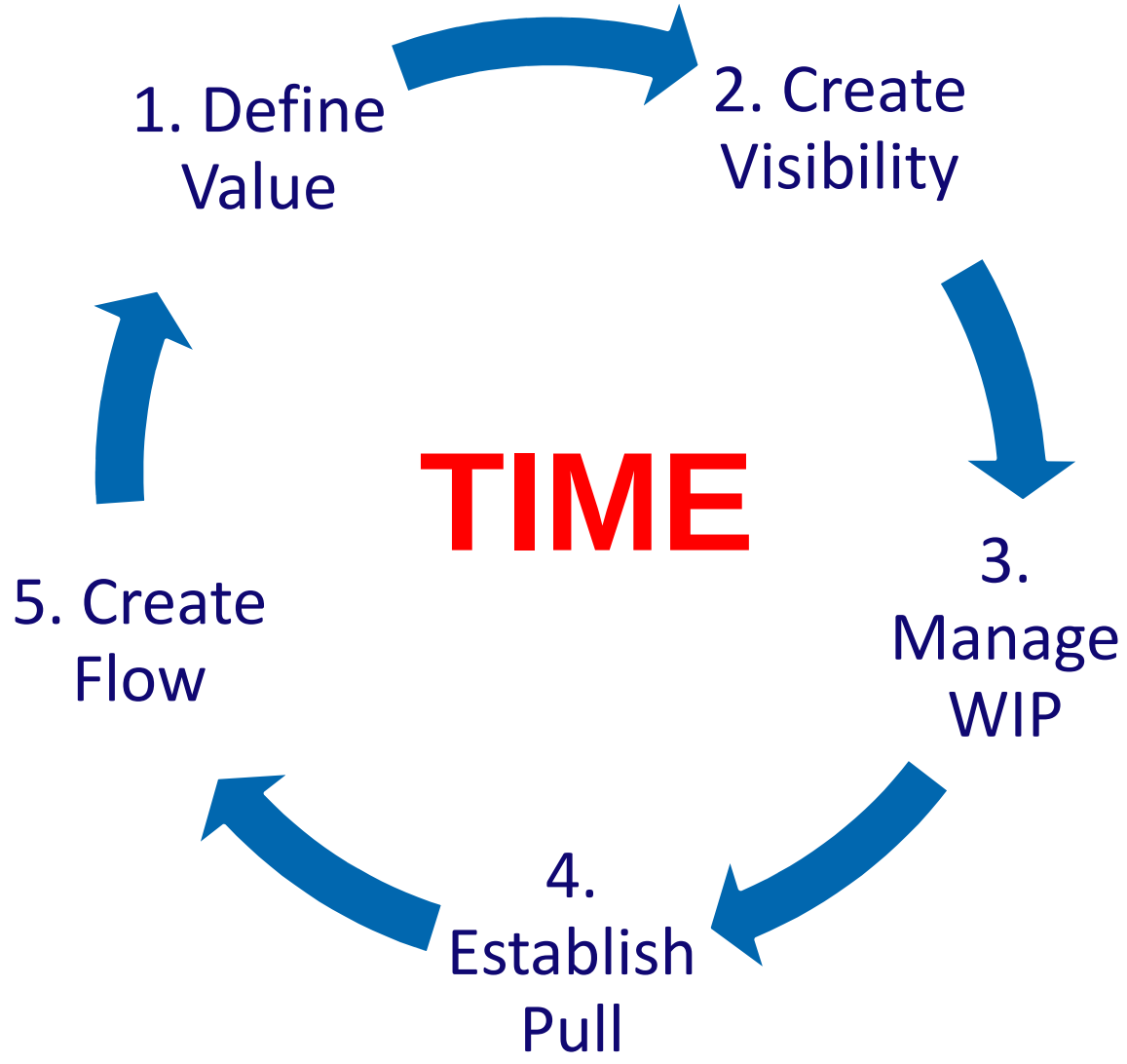
$$Velocity = \frac{Estimate\ Days}{Cycle} \qquad Flow = \frac{\#Deliverables}{Cycle}$$

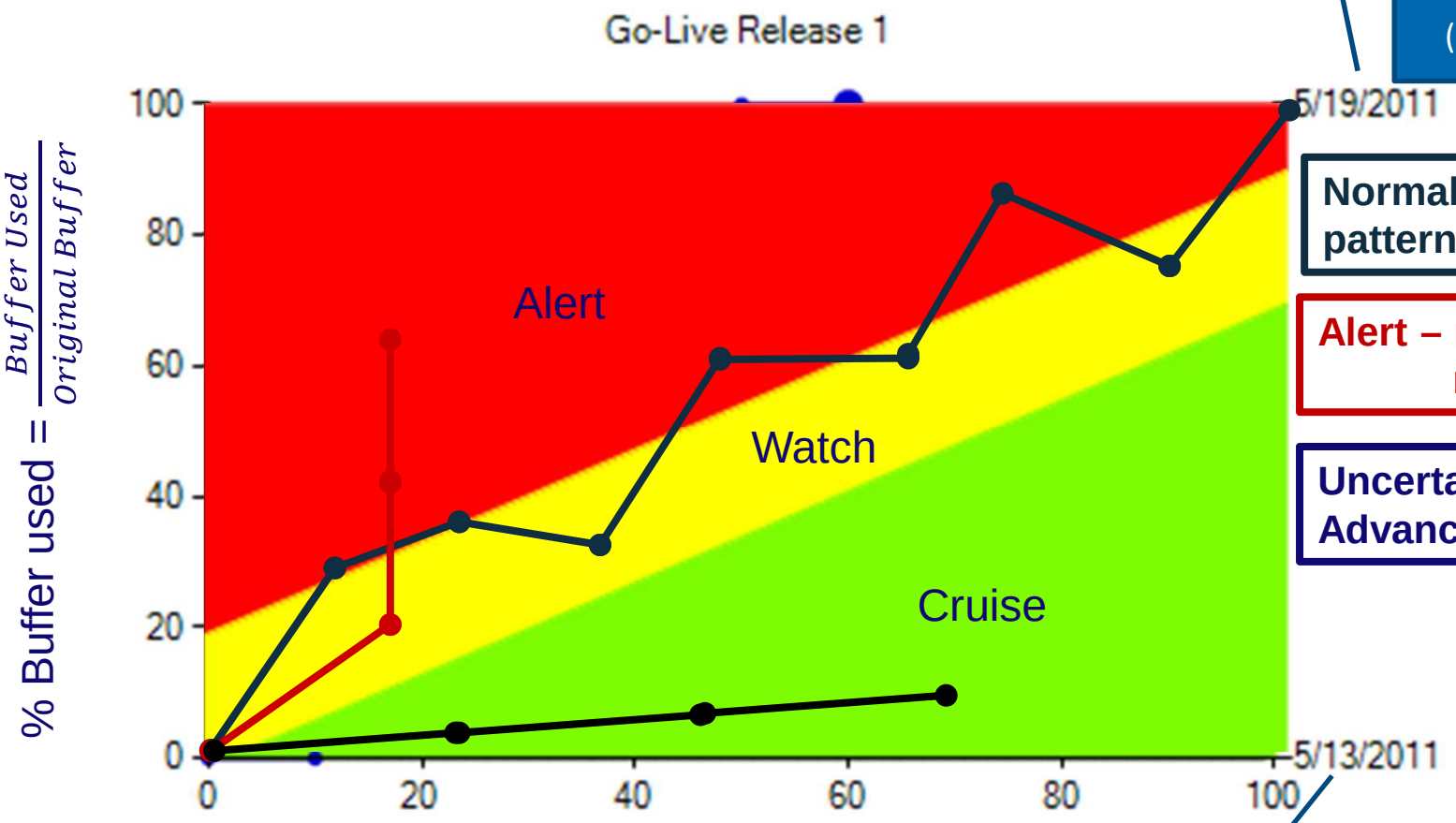
- Velocity can be used to measure how close to the estimates the actuals are, and what to project going forward
- Historical data on flow can be used to estimate future projects simply by knowing the number of deliverables.

TOC Applied



Time





Target end date
(90% probability)

Normal execution pattern

Alert – need buffer recovery plan

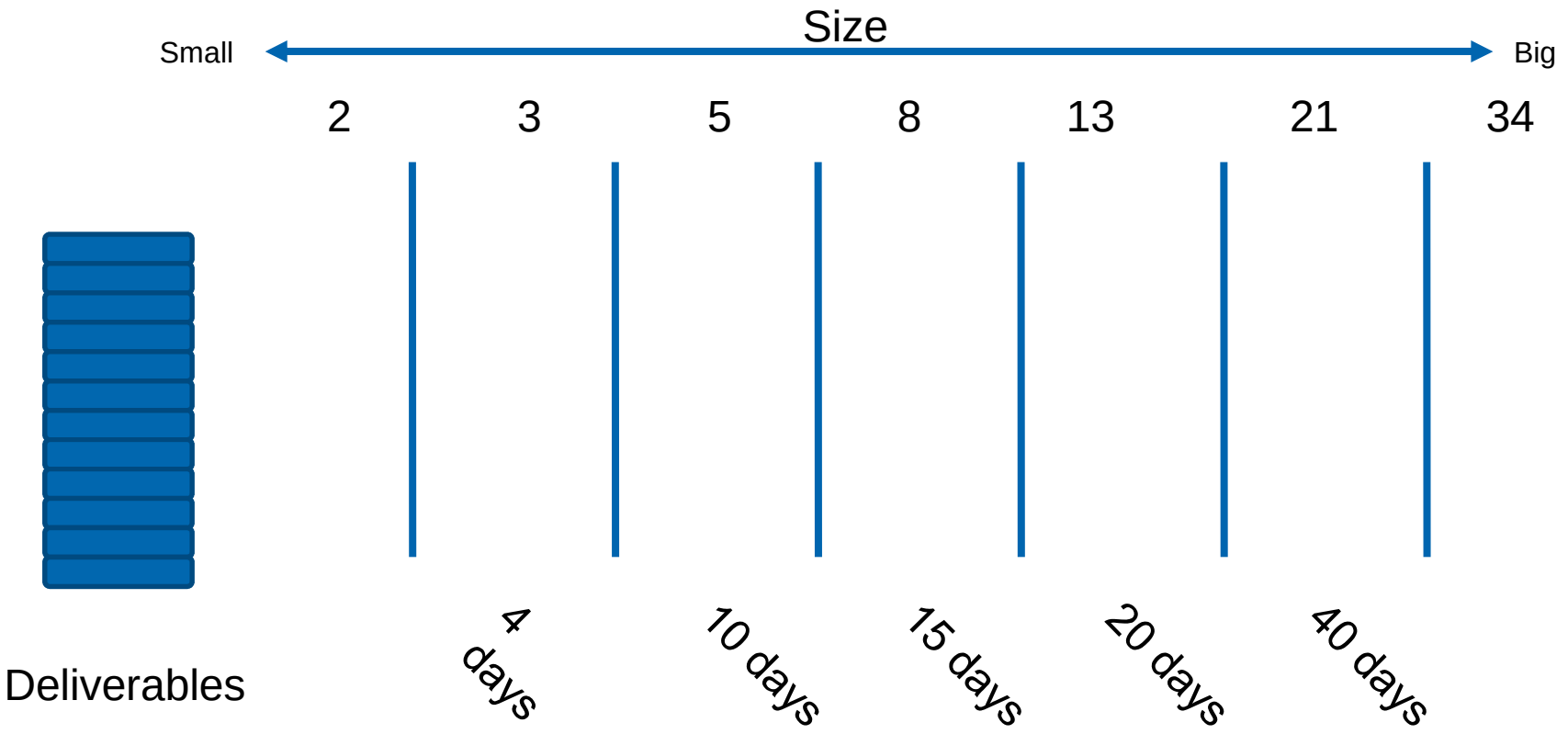
Uncertainties are fewer Advance due date?

Earliest end date
(50% probability)

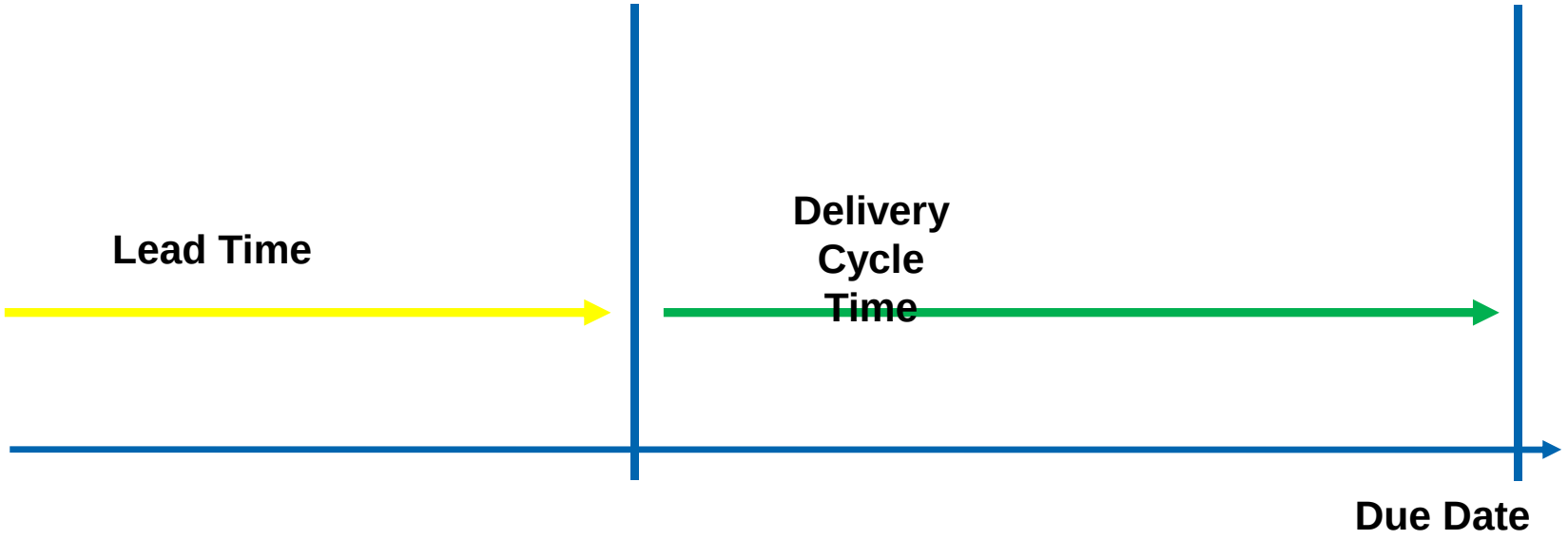
$$\% \text{ Chain complete} = \frac{Original\ Chain - Remaining\ Chain}{Original\ Chain}$$

NOTE: See chapter 17 of Mike Cohn's book Agile Estimating and Planning for an example of CCPM

Relative Sizing Estimates



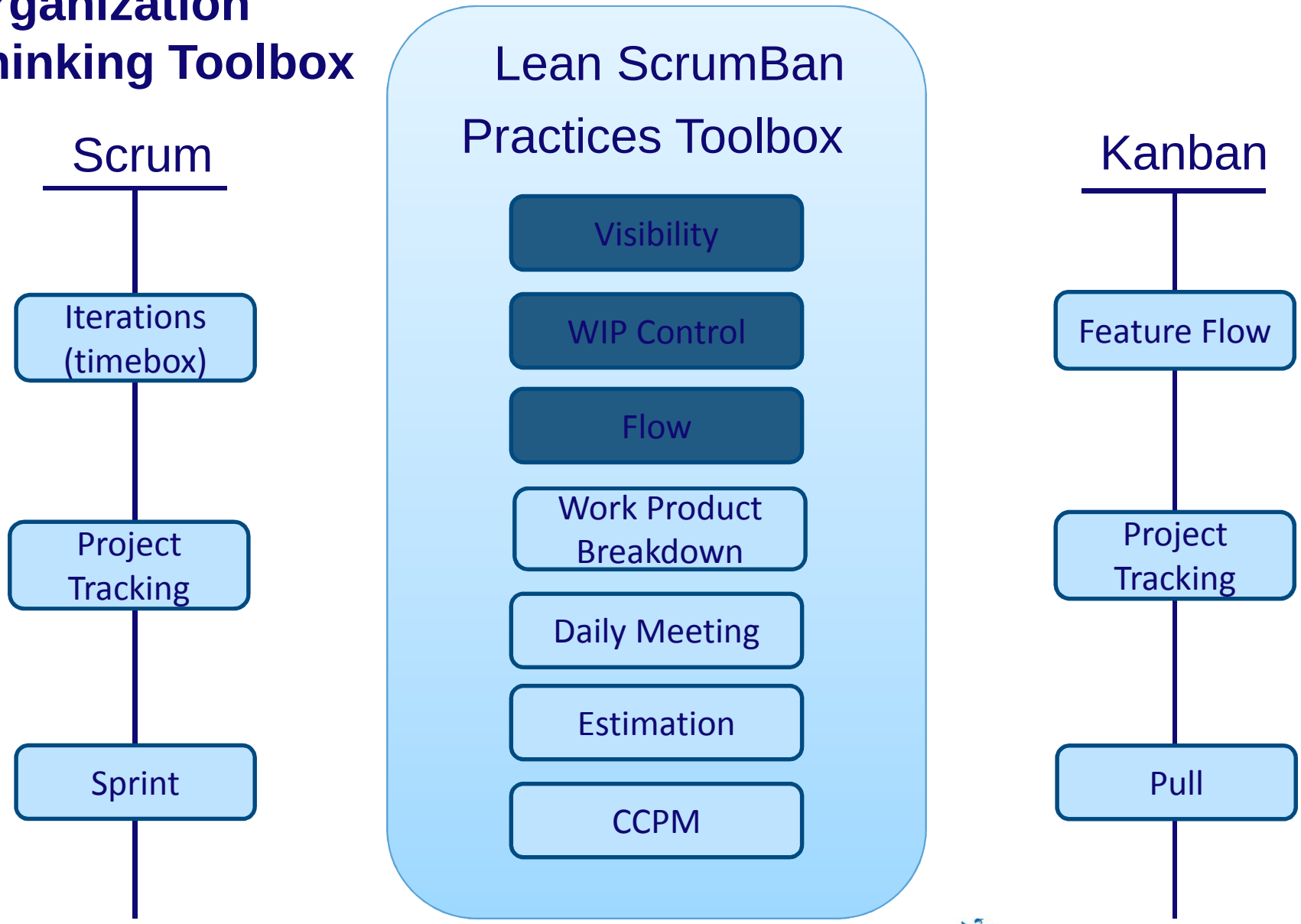
Lead Time



- Given Average Cycle Time, Lead time is calculated based on
  - Type of work (“Feature Size”)
  - Average cycle time for that type

Organization Transformation

Organization Thinking Toolbox



Business Goal	Metric Owner	Metric	Measurement Frequency	Rollup	Description	Desired Target/Trending
Early & Frequent Client Value Enablement (Agility)		User Stories Delivered Actuals and Forecast	Monthly	Yes Project/Service Release -> Portfolio -> Org	Actual & Target # of user stories delivered to production per month Measures ability to deliver incremental value at a monthly cadence	TODO : Define G/R/Y status coloring based Actual : Target delta
		E2E User Story Delivery Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median Envision to Go Live cycle time for user stories scoped for a monthly release Measures ability to **define** and **deliver** incremental business value (optimal grain user stories) with Agility	Org Target Median
Early & Frequent User Engagement (Agility)		Requirements Definition Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median Envision to Build ready cycle time for user stories scoped for a monthly release Build ready implies Envision complete or Prototype complete based on whether or not a user story requires prototyping Measures ability to crystallize requirements for user stories with agility and with early & frequent client partner collaboration	Org Target Median
		# Client Partner initiated TFS items (TFS Item Source = Customer)	Monthly	Yes Project/Service Release -> Portfolio -> Org	# of TFS items (features, work items, defects, CRs) created with Source = Customer, OPS Measures early & frequent active/hands-on user engagement in eliciting needs instating optimal quality	High to low weekly count trending from month start to month end

Business Goal	Metric Owner	Metric	Measurement Frequency	Rollup	Description	Desired Target/Trending
Quality First Engineering		Upstream Quality First Engineering Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median Build Entry to Build Exit cycle time for user stories scoped for a monthly release Measures ability to implements stories with agility and upstream quality enablement. The Build phase incudes TDD (unit, component, scenario tests) and CI practices to achieve upstream quality enablement	Org Target Median
		Downstream Quality First Engineering Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median Validate Phase Entry to Validate Phase Exit cycle time for user stories scoped for a monthly release Measures operational efficiency of downstream quality validation Downstream quality validation includes SIT, Stress/Performance, Penetration and UAT testing. Operational efficiency in downstream quality validation is achieved through the application of the TDD, CI, and CD practices	Org Target Median
		Build Break %	Monthly	Yes Project/Service Release -> Portfolio -> Org	(# Build Breaks / # Builds) * 100 Measures ability to generate high quality builds by emphasizing the requirement for all code & config check-ins to pass the CI gates that enforce upstream quality	Org Target %
		Code Coverage	Monthly	Yes Project/Service Release -> Portfolio -> Org	(#Blockes of code covered / #total blocks of code) * 100 Measures ability to generate high quality solutions by automating the testing to pass the CI gates that enforce upstream quality	Org Target %

Business Goal	Metric Owner	Metric	Measurement Frequency	Rollup	Description	Desired Target/Trending
Quality First Engineering		Defect Regression %	Monthly	Yes Project/Service Release -> Portfolio -> Org	% of defects re-activated during measurement period : (# of defects re-activated/total # of defects)* 100 Measure desired trait of zero defect regressions	Org Target %
		Incoming Defect Count	Monthly	Yes Project/Service Release -> Portfolio -> Org	# of Defects in Production Measures the # of defects surfaced in production Note : It is the norm for defects to surface and be addressed during the development, upstream quality validation, and downstream quality validation phases – especially with a practices like TDD, CI, and CD. Emphasizing defect counts in pre-production environments does not promote the desired AQ behaviors. The operational efficiency of upstream and downstream quality enablement & validation are measured sufficiently by the other Quality first engineering practices, making it sufficient for this metric to emphasize defects in production	Org Target #s by defect severity
Operational Scalability		Build Deployment Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median Build Deployment Cycle Time by Environment (SIT, Stress, UAT, and Production Measures the efficacy of scalable deployment practices – Automated builds, config as code, and Continuous Deployment Services	Org Target Median
		Incoming SR count	Monthly	Yes Project/Service Release -> Portfolio -> Org	# of incoming SRs in Production Metric source : SCSM	Org Target #s by SR priority
		SR Resolution Cycle Time	Monthly	Yes Project/Service Release -> Portfolio -> Org	Median cycle time to resolve SRs Metric source : SCSM	Org Target Median
		% of SR to Defect Conversion	Monthly	Yes Project/Service Release -> Portfolio -> Org	# of SRs converted to Defects Metric source : SCSM/TFS	Org Target #s by Defect severity

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