



# Understanding Agile with Scrum for the Rest of Us

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## Impediments impacting quality & productivity?

- Distractions
- Changes
- Lack of communication or miscommunication
- Multi-tasking
- Specialists

## Agile Maturity

- Shu
- Ha
- Ri

# What is Agile development with Scrum?

## The Agile Manifesto

### Individuals & interactions

processes & tools

### Working software

comprehensive documentation

### Customer Collaboration

contract negotiation

### Responding to Change

following a plan

# Change is Disruptive!

- Inefficient
- Delays availability
- Increases costs
- Frequently, negatively impacts quality

Embrace Change\*

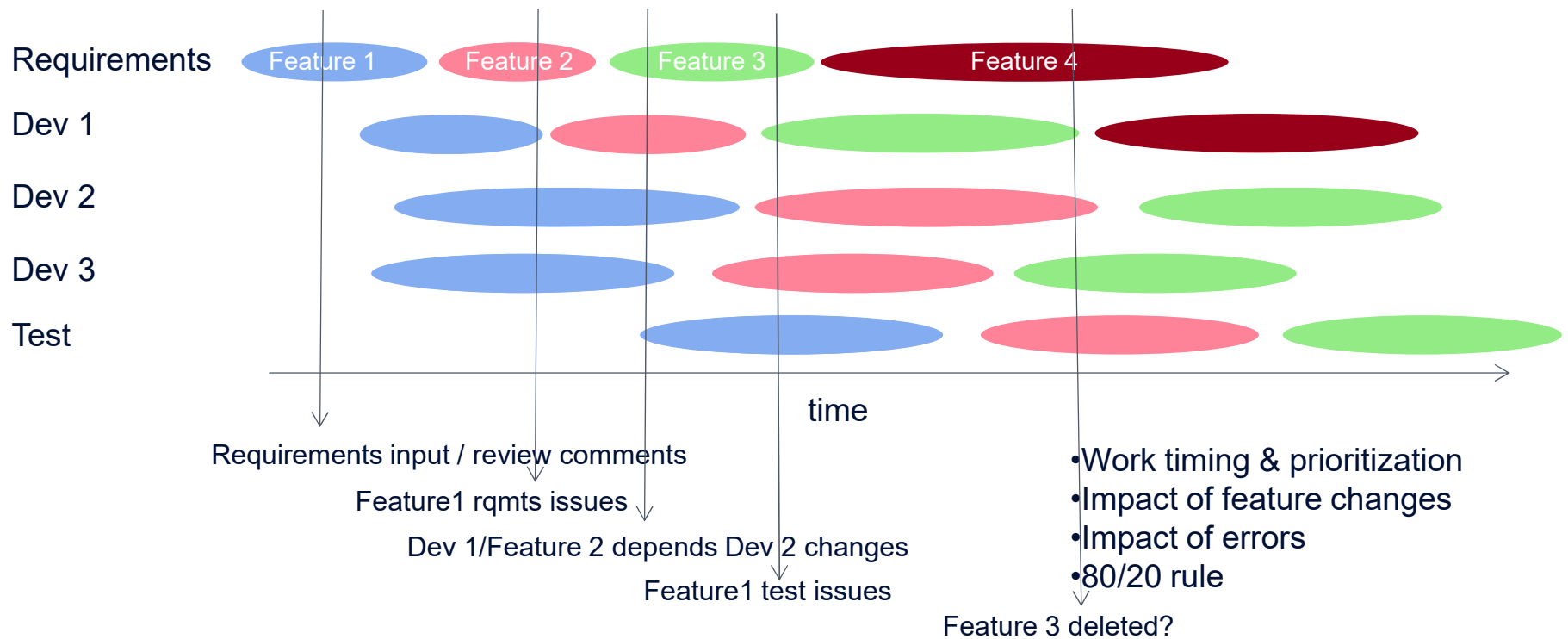
## Agile core concepts

- Minimize Work in Progress (WIP)
- Communicate
- Collaborate
- Focus

## Traditional development process (aka “Waterfall”)

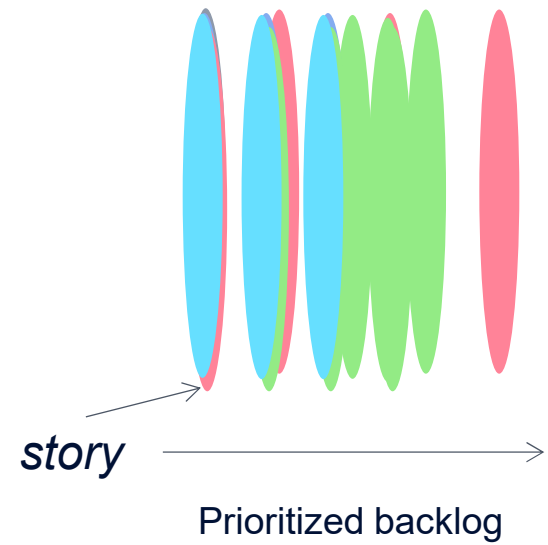
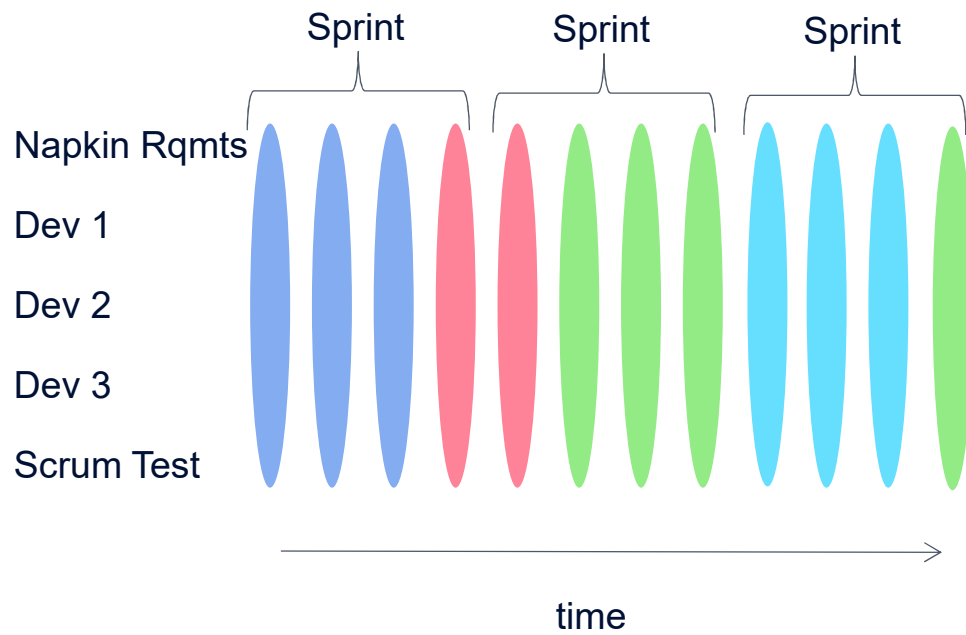
- Identify all of the features in the release
- Develop Requirements
- Implement required functionality
- Test & fix
- Retest
- Deliver

# Concurrent Waterfall



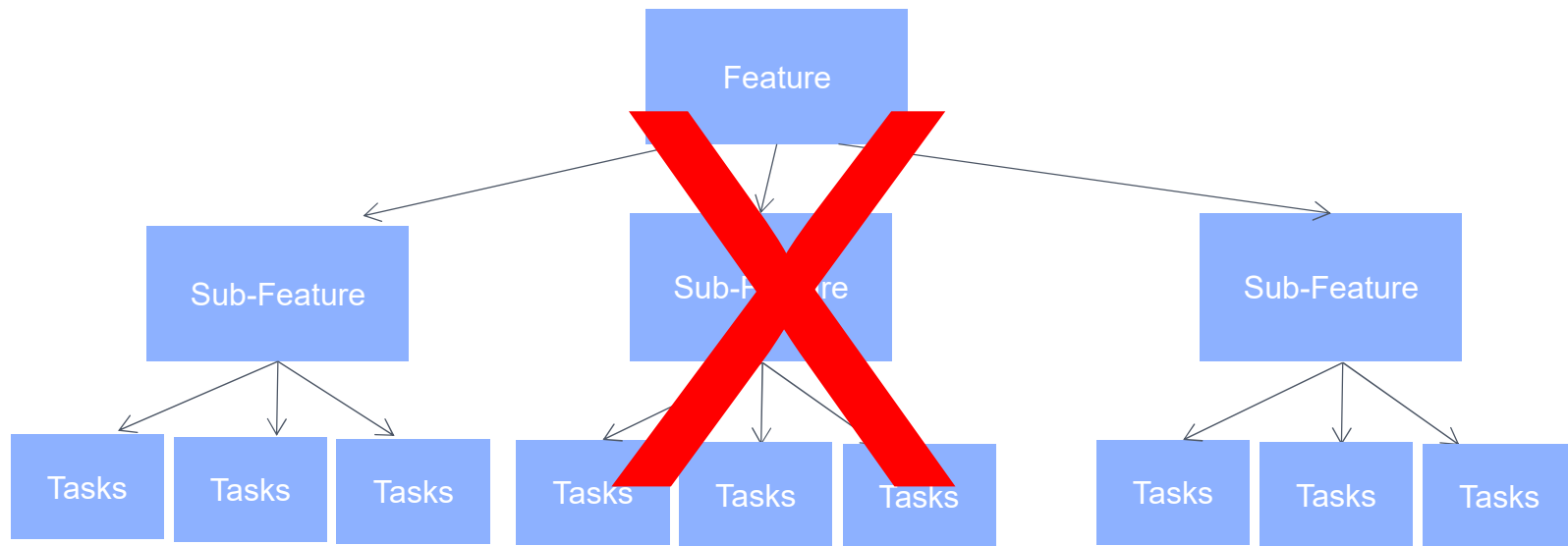


# Agile Slices



# Estimation

## Work Breakdown Structure (WBS)



## Estimation

### Agile approach

#### Feature Estimation

- Team walk through of feature description
- Discuss risks & areas of complexity
- Estimate based on “analog” actuals

#### Story Estimation

- Agree on story description & scope
- Scrum poker?
  - Identifies gaps &/or individual differences in scope/work
  - helps improve team alignment
- Metrics

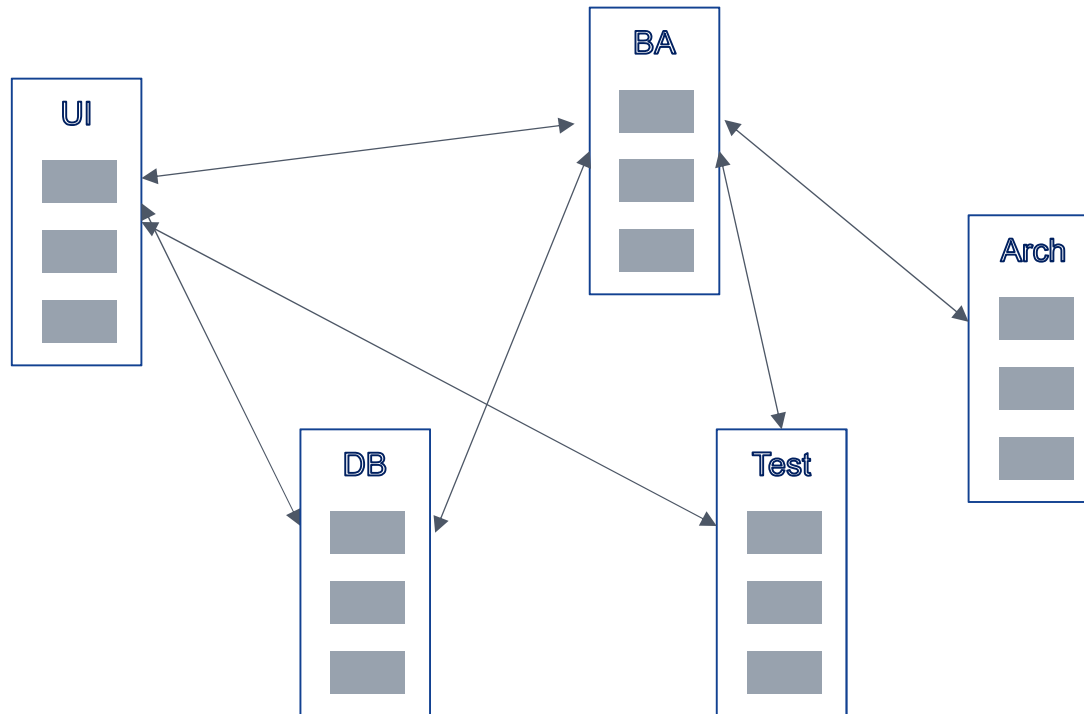
## Estimation

### Analog Method based on Prior Actuals

Key	Component/s	Summary	Total Actual Effort
story1742	Assessments_and_Planning	Feature1: 0/1 Assessment Switching in Mated pair of R/E (configuration)	1
story1740	Assessments_and_Planning	Feature 1: Assessment & Planning including 2/2E including N & N+1 configs	0.5
story1860	Initial Development	Feature1: 0/1 Implementation & Unit test	9
story1739	Initial Development	Feature1: 2/2E Switching Implementation & Unit test	5.5
story1736	Documentation	Feature 1 - User Documentation development & review	2.5
story1861	Requirements, Scrum_Testing	Feature 1: 2/2E High Level Requirements & High Level Test Plan	6.75
story2011	Requirements	Feature 1: 2/2E & 0/1 detailed requirements	3
story2012	Requirements, TL1	Feature 1: TL1 requirements, implementation	1
story1942	Scrum_Testing	Feature1: 2/2E Scrum Test Plan, testing & rework	30.625
story1988	Scrum_Testing	Feature 1: 0/1 High Level Test Plan	1.25
story2083	Scrum_Testing	Feature 1: 0/1 Scrum Test & rework	1.3
story2113	Validation Testing	Feature 1: 2/2E Validation rework	2
story2114	Validation Testing	Feature 1: 0/1 Validation rework	1.5
		Total Effort - Feature 1	65.925

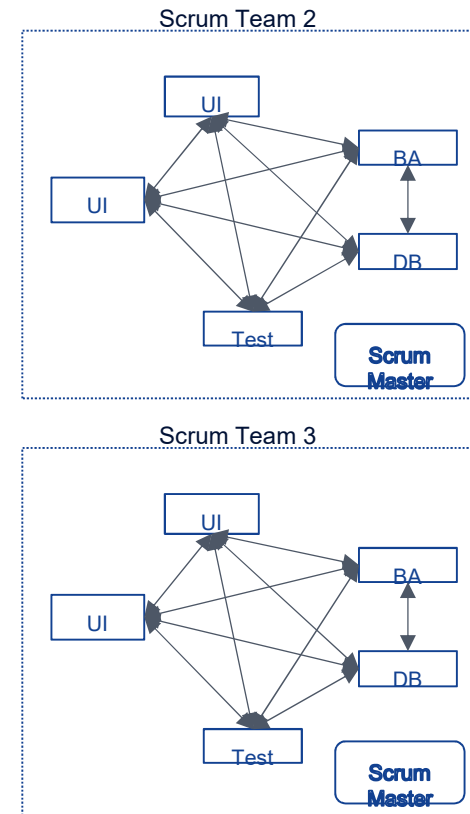
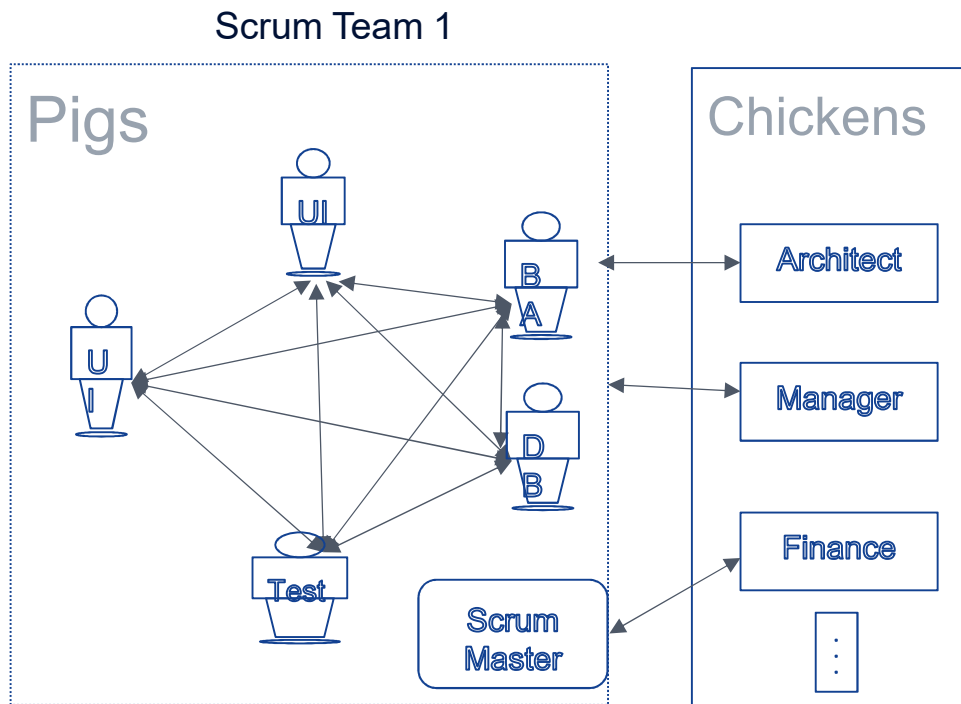
# Communication

## Typical Communication Paths



# Communication

## Scrum Communication



## Scrum team

### Characteristics

- Multi-disciplinary
- Small (7 +/- 2)
- Frequent, strongly connected communication
- Focus on a few slices at a time .... serialize

### Other

- Focused team members, limited time sharing
- “Generalized specialists”
  - But, collaborate with experts

## Ceremonies

### Sprint Review & Planning (full team)

- Review release schedule, plan changes, other
- Review incoming features

### Sprint Review & Planning (Scrum team breakout sessions)

- Review stories, status, issues & metrics
- Review, estimate & commit stories for next sprint

### Daily Standups (each Scrum team)

- Short daily team hook up & communication
- Three questions (done, next, impediments)



# Supporting Agile Objectives

## Minimize WIP

- Napkin requirements
- Stories (ie vertical slices)
- Incremental Scrum test

## Communication

- Standups
- Sprint reviews
- Pairwise, etc., discussions

## Collaboration

- Cross discipline teams
- Integration with market management, customer support, production

## Focus

- Triage
- Work alignment within team

## Addressing Impediments to Quality & Productivity

- Distractions
- Changes
- Lack of communication or miscommunication
- Multi-tasking
- Specialists

Mantra  
Obstacles

Do what makes sense

Trust

**NOKIA**