



Lean and Kanban at Scale

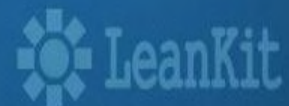
Extending Kanban across the portfolio, program and team levels

Al Shalloway, Net Objectives

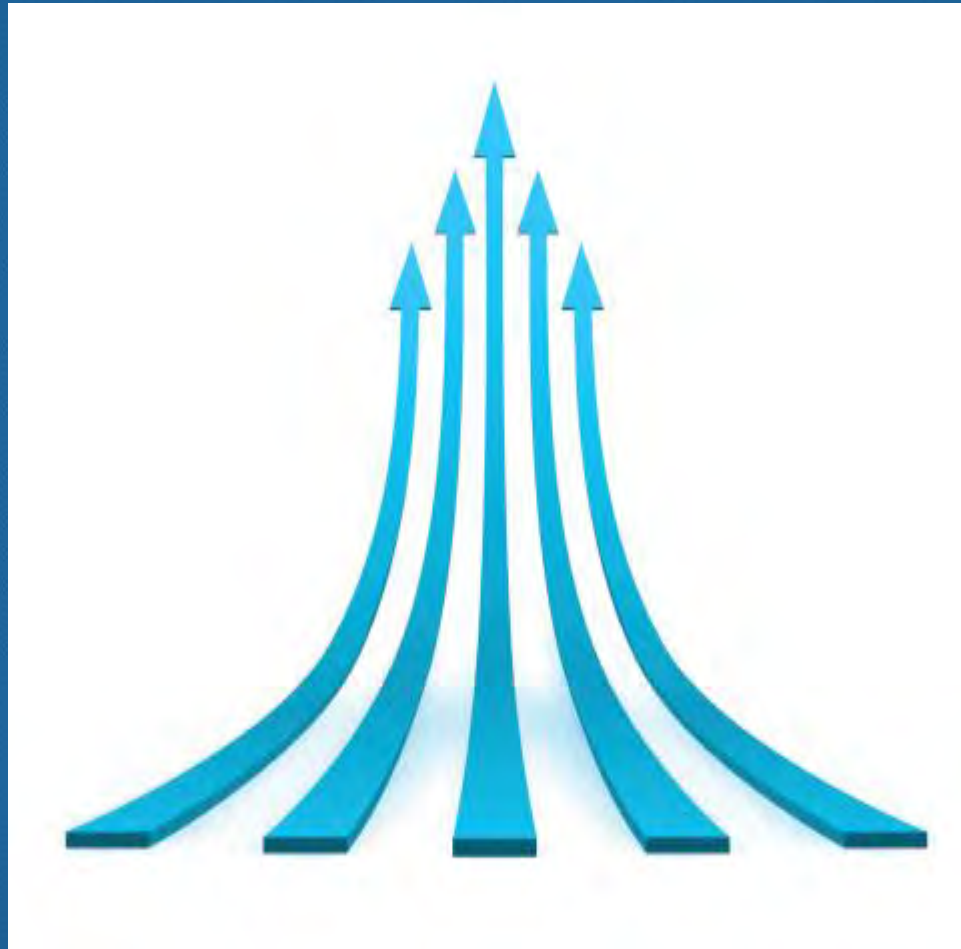
September 4th, 2014



Net Objectives



Implementing Kanban at Scale



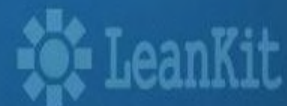
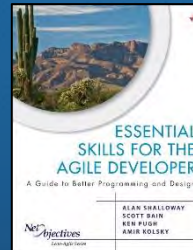
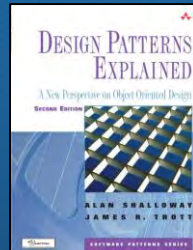
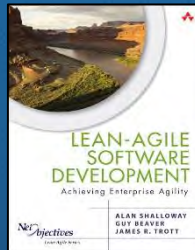
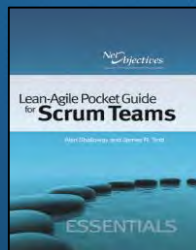
Al Shalloway, CEO & Founder of Net Objectives



With over 40 years of experience, Al is an industry thought leader in Lean, Kanban, product portfolio management, SAFe, Scrum and agile design.

Co-founder of LKU (no longer affiliated)
SPC Trainer

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setting the record straight

**Agility is about
delivering business value
quickly, predictably, sustainably
and with high quality**

It is not about developer cycles



this talk is about mindset

solutions are not being provided



The Players	What they do
Kanban	Using pull to manage work
Kanban Method	A kaizen only approach Using kanban to improve flow by managing WIP Ignores structure of eco-system
Lean-Kanban	Using Kanban and Kanban Method within the bigger picture of Lean
Lean-Thinking	Using all of Lean to solve your challenges

Lean-Startup concepts
to identify work to be done

Lean
to modify eco-system

Kanban
to manage flow

Attend to technical practices

AGILE AT SCALE

1. THE CHALLENGE – HIERARCHY VS. WORKFLOW

2. VALUE STREAM IMPEDANCE
3. ALLOCATE PEOPLE TO MOST VALUABLE WORK
4. MANAGING FLOW ACROSS ENTIRE VALUE STREAM
5. THE ROLES OF BUSINESS, MANAGEMENT, TEAMS
6. DIFFERENT APPROACHES
7. SCRUMBAN / KANBAN
8. SUMMATION & QUESTIONS





Systems & Structures

Poor systems cause most of our problems

Biggest sources of waste are:

- Delays in workflow
- Delays in feedback

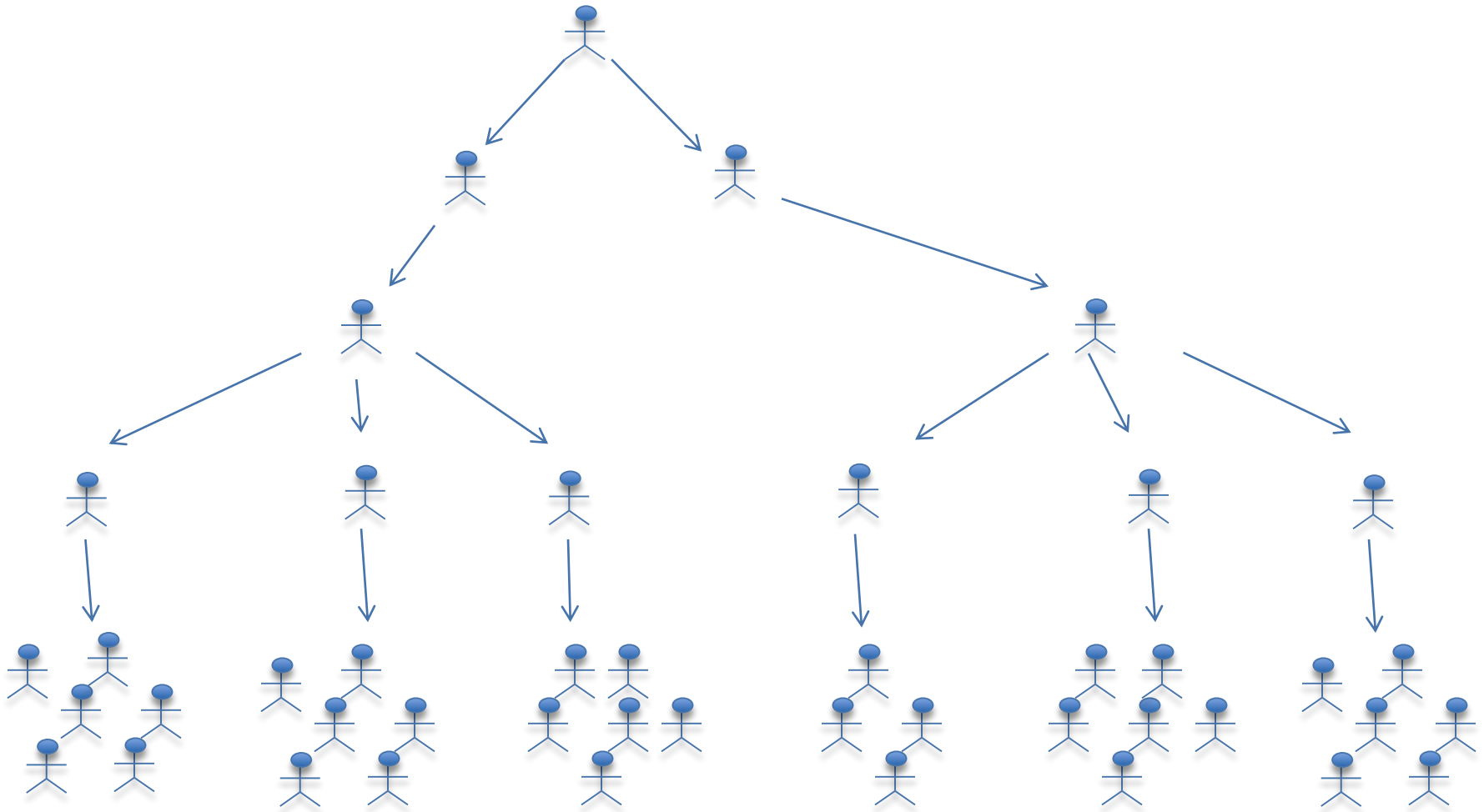
Consider:

- Customers don't know what they want
- What happens when we don't do test-first

Consider:

- Developers and fixing bugs
- The delays due to how devs & testers work together

Common Organizational Structure



inspired by Dan North, BSC/ADP 2012

Hierarchical

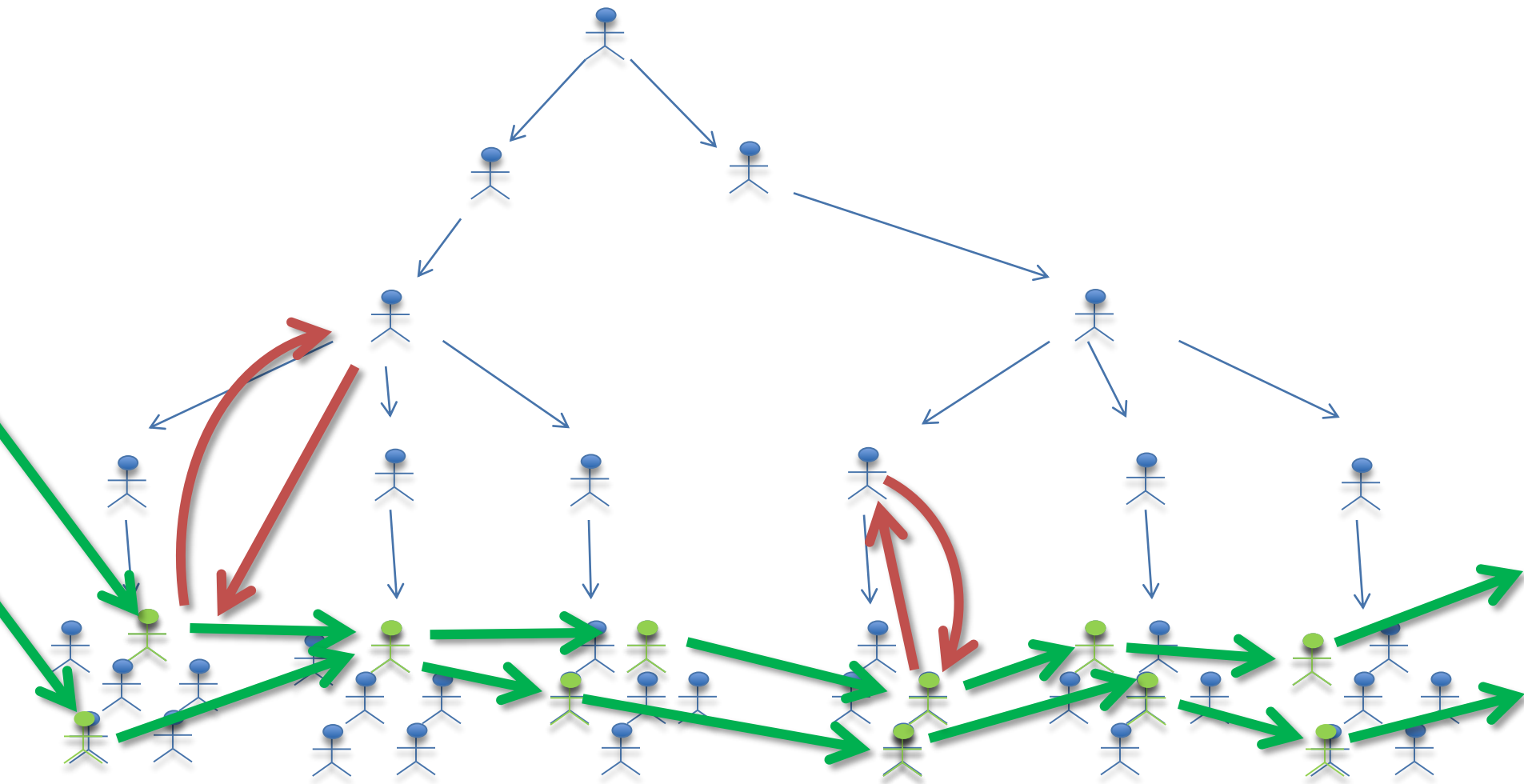
What they can manage

Their people

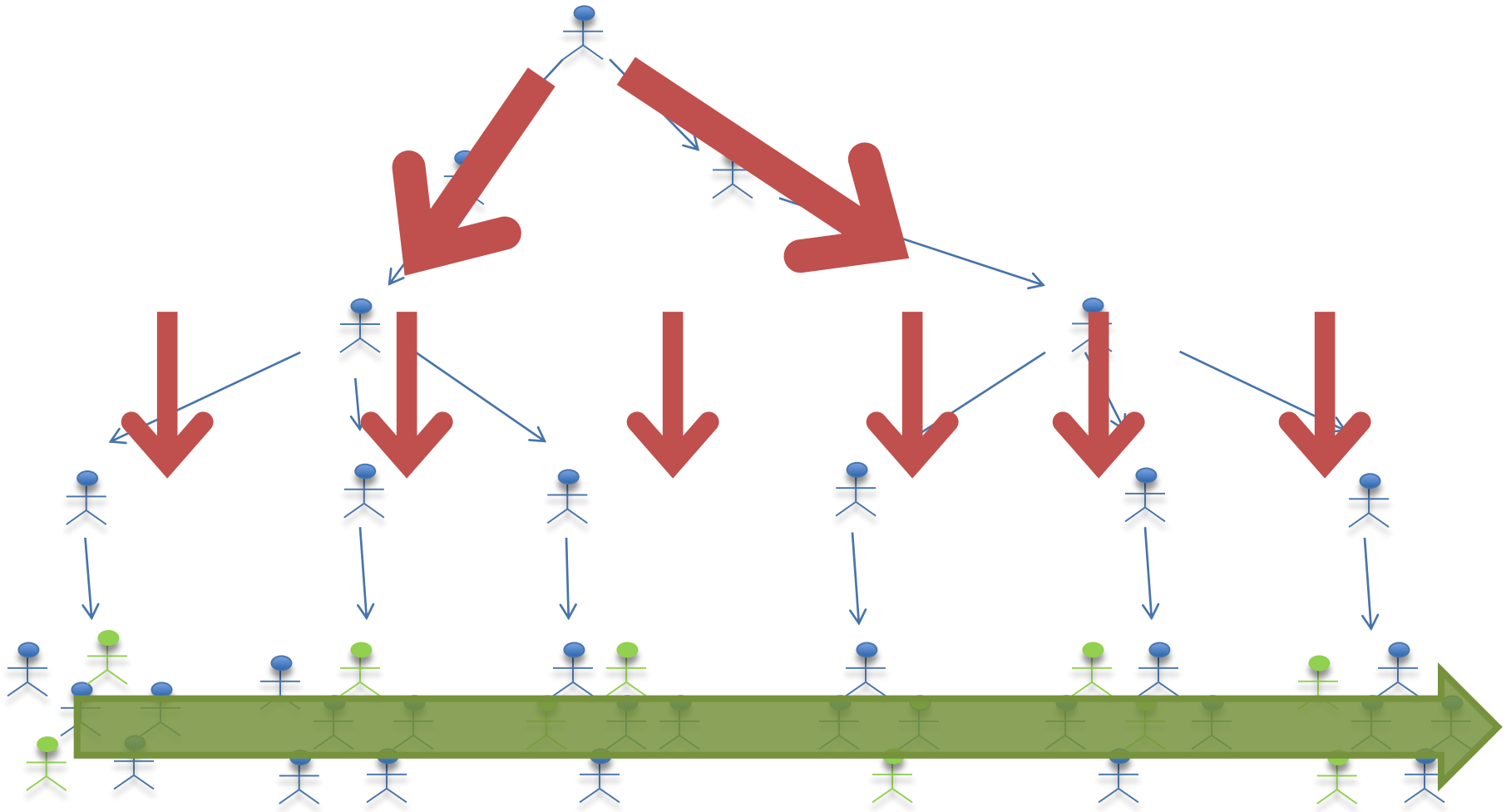
- How busy they are
- Their “productivity”

The quality of work of
their people

The Nature of Our Work



We Manage This Way

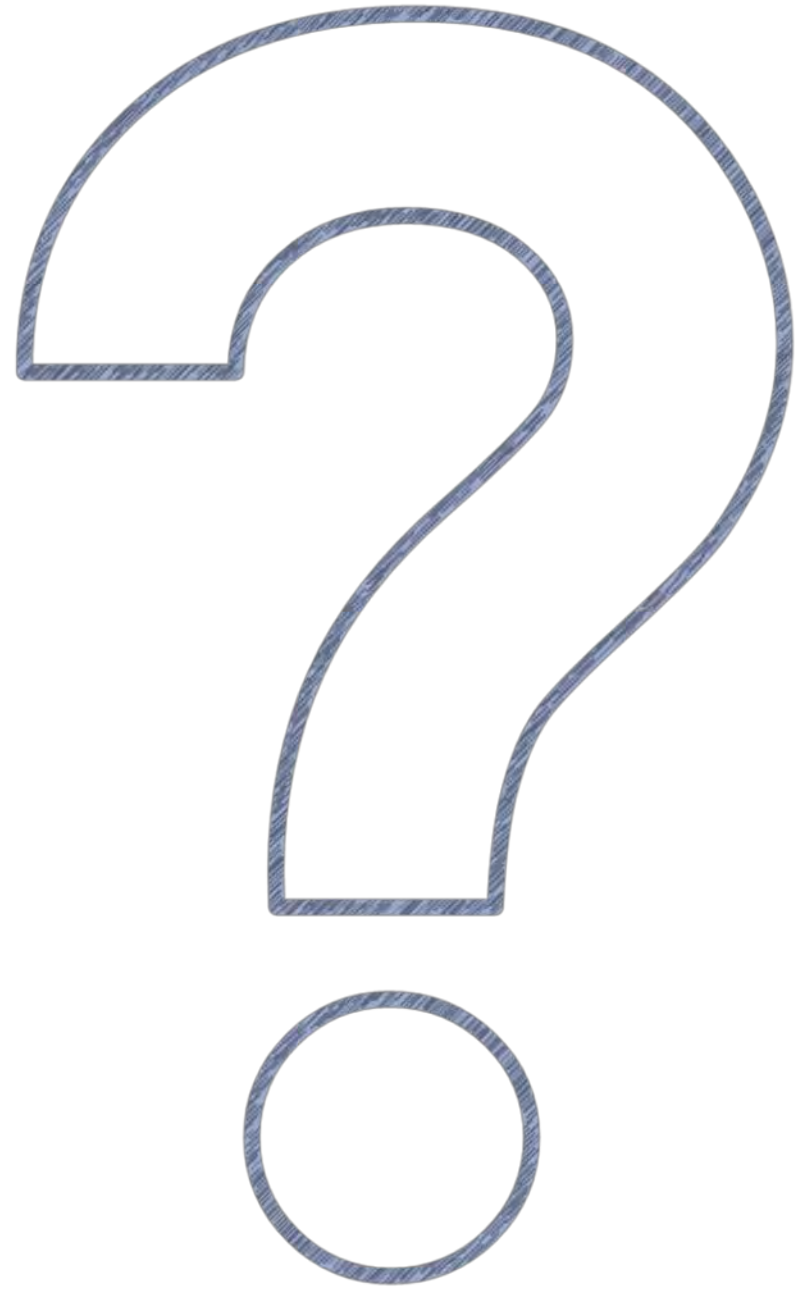


even though our *value* flows this way

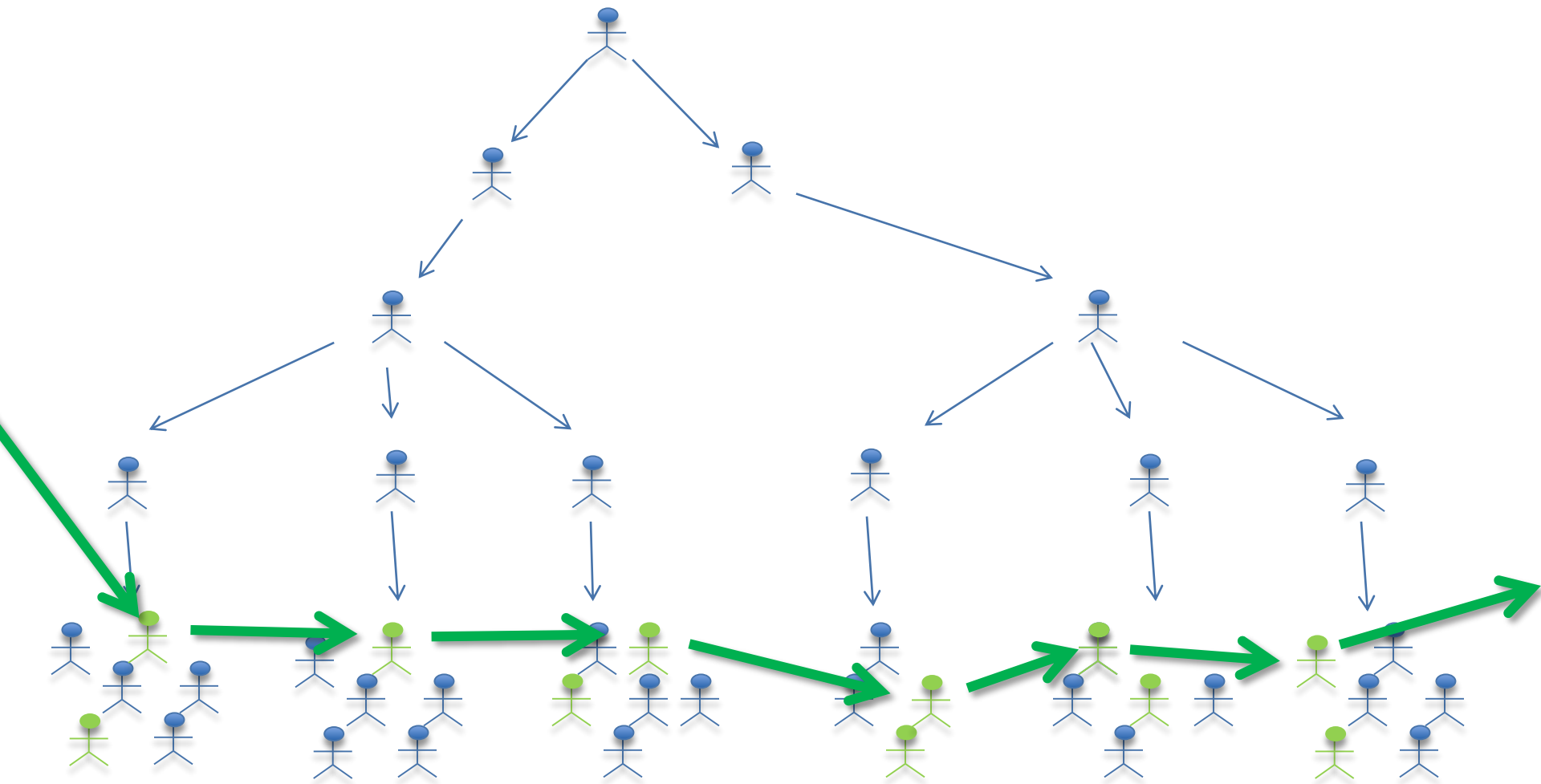
Hierarchical vs. Lean Management

What they can manage	What they need to manage
<p>Their people</p> <ul style="list-style-type: none">• How busy they are• Their “productivity” <p>The quality of work of their people</p>	<p>Time-to-market</p> <p>Effects of upstream groups on their teams</p> <p>Effects of downstream groups on their teams</p>

Who is
managing
the value?



Time-to-Market



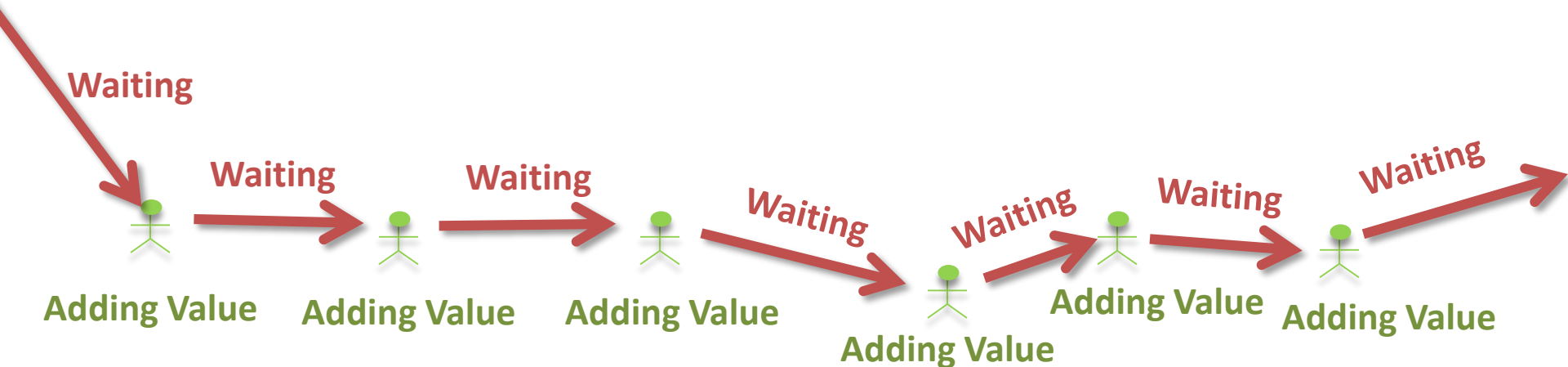
How Often Does Work Wait?

What percent of the time is our work moving forward?

How much of the time is it waiting for something else to be done?

How would you know?

No one is managing this in most companies.



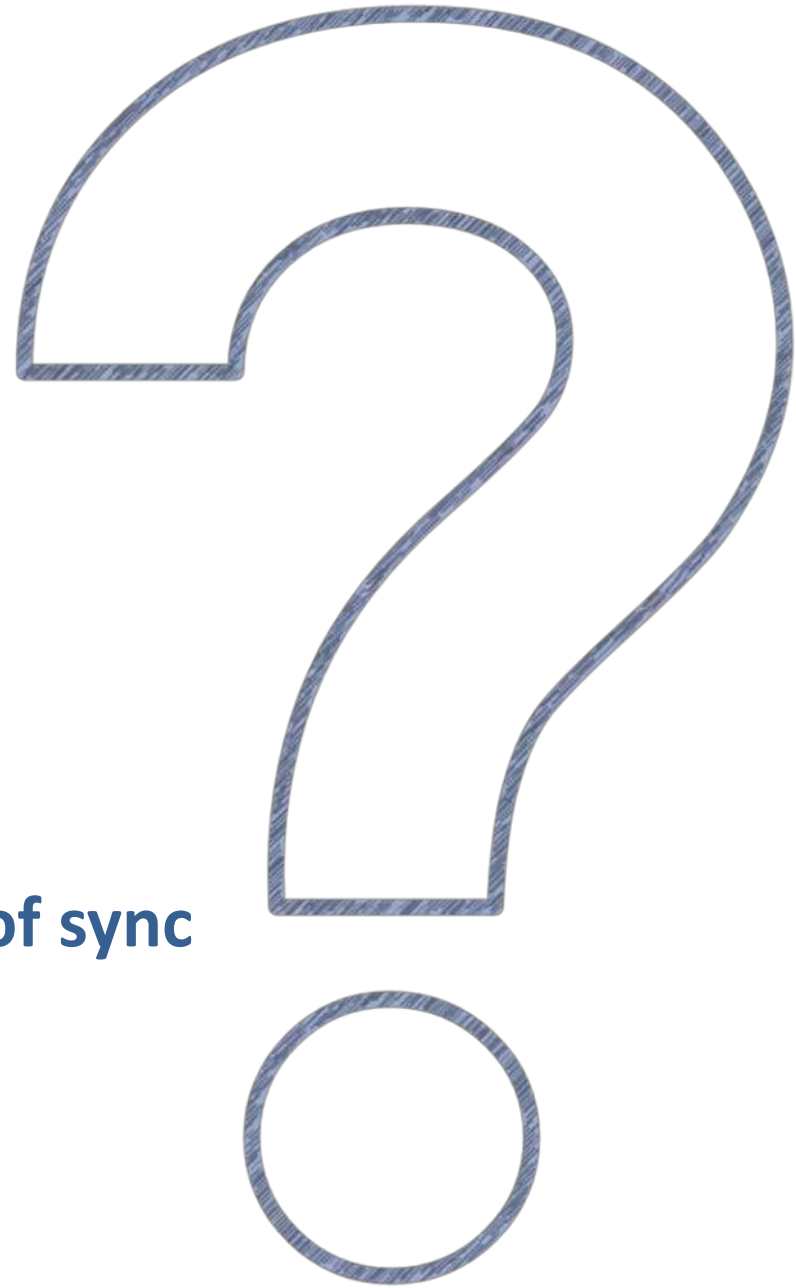
what happens when adding value is delayed?

between **getting requirements**
and **using them**

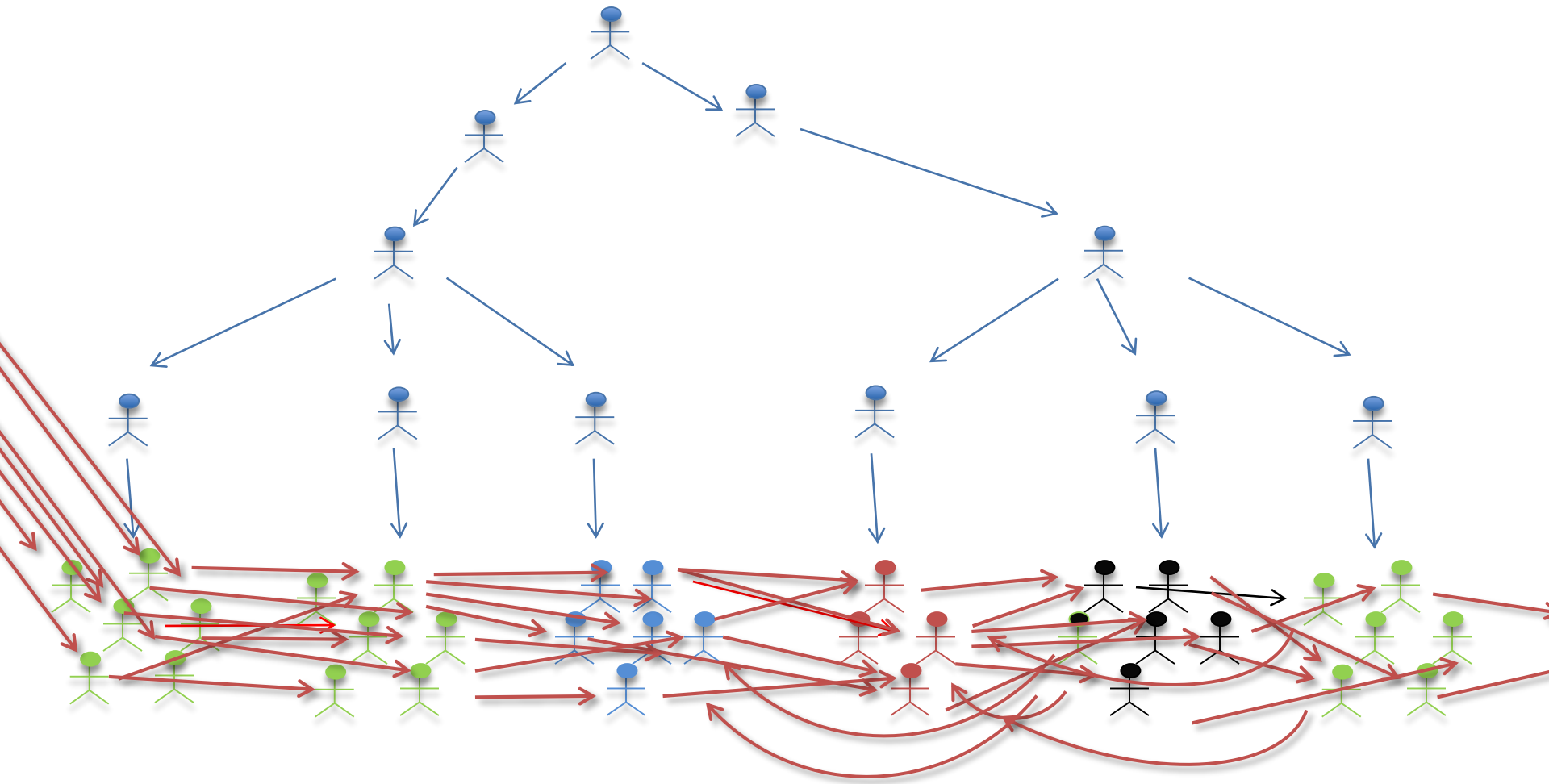
between **writing a bug**
and **it being detected**

between **two groups getting out of sync**

between **starting a project**
and **it delivering value**



The Whole Picture



Value Stream

Request

Approve

Reqs

Sign Off

Analysis

Design

Review

Code

Test

Deploy

1. Identify the actions taken in the value stream

Value Stream

Request

0.5 hrs

Approve

8 hrs

Reqs

160 hrs

Sign Off

8 hrs

Analysis

100 hrs

Design

120 hrs`

Review

2 hrs

Code

280 hrs

Test

240 hrs

Deploy

8 hrs

1. Identify the actions taken in the value stream
- 2. What was the real time from start to finish of the action?**

Value Stream

Request

0.5 / 0.0 hr

0.5 hrs

Approve

.1 / 7.9 hrs

8 hrs

Reqs

60 / 100 hrs

160 hrs

Sign Off

1 / 7 hrs

8 hrs

Analysis

40 / 600 hrs

100 hrs

Design

40 / 80 hrs

120 hrs`

Review

2 / 0 hrs

2 hrs

Code

80 / 200 hrs

280 hrs

Test

40 / 200 hrs

240 hrs

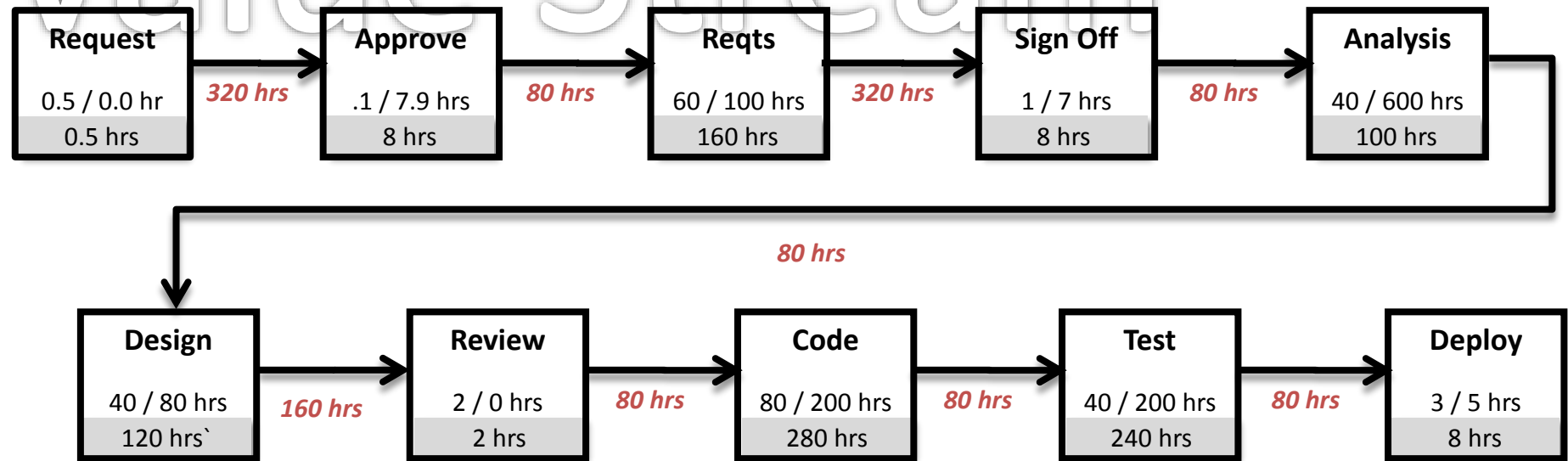
Deploy

3 / 5 hrs

8 hrs

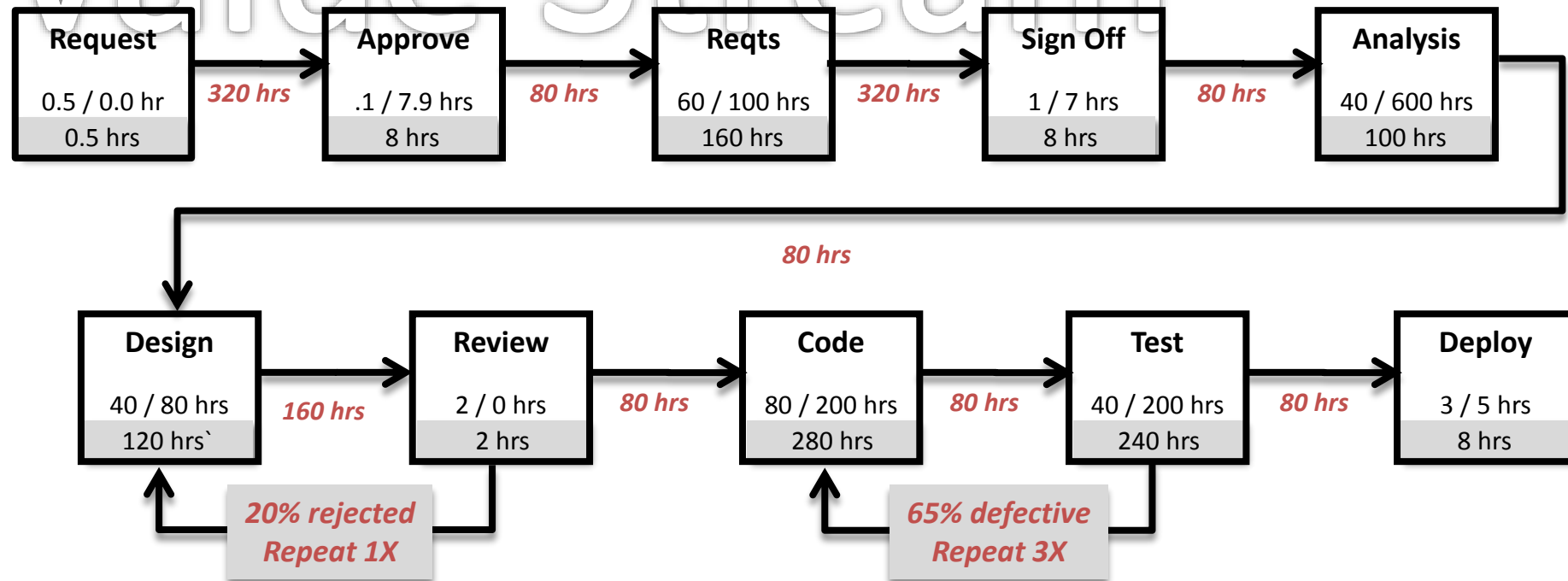
1. Identify the actions taken in the value stream
2. What was the real time from start to finish of the action?
- 3. What was the average time working on this vs. working on other things?**

Value Stream



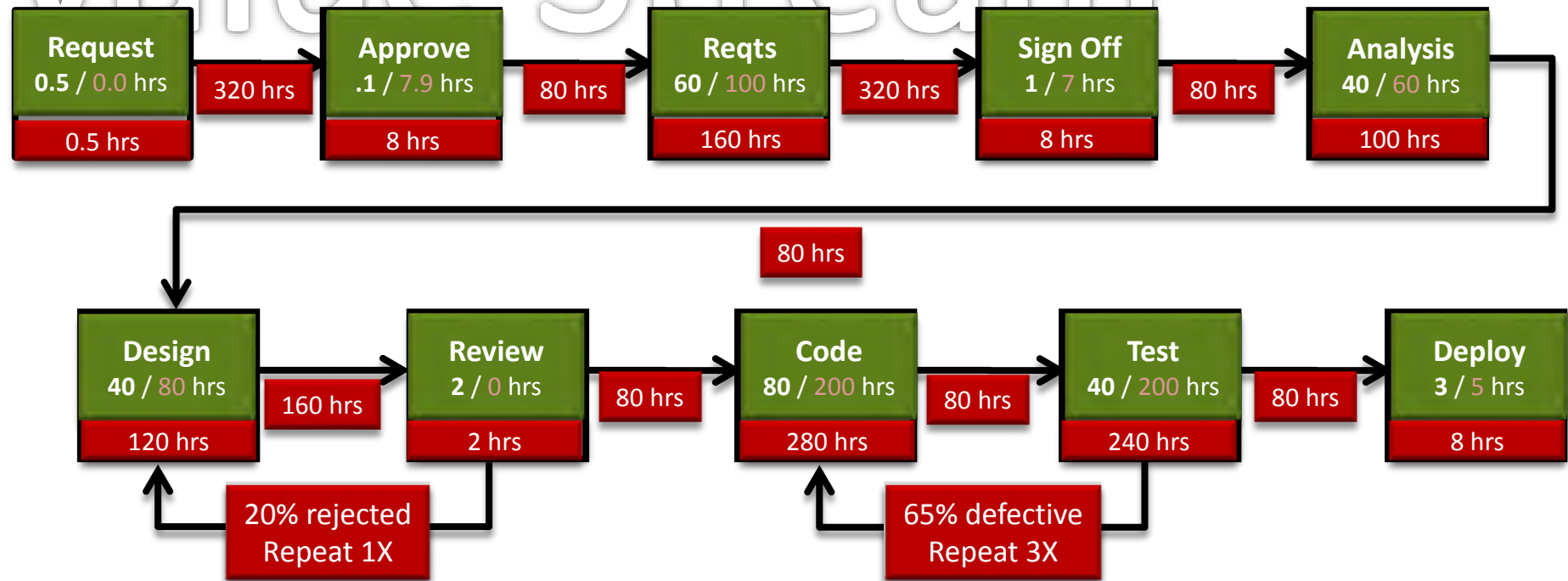
1. Identify the actions taken in the value stream
2. What was the real time from start to finish of the action?
3. What was the average time working on this vs. working on other things?
- 4. Identify time between actions**

Value Stream



1. Identify the actions taken in the value stream
2. What was the real time from start to finish of the action?
3. What was the average time working on this vs. working on other things?
4. Identify time between actions
- 5. Identify any loop backs required**

Value Stream

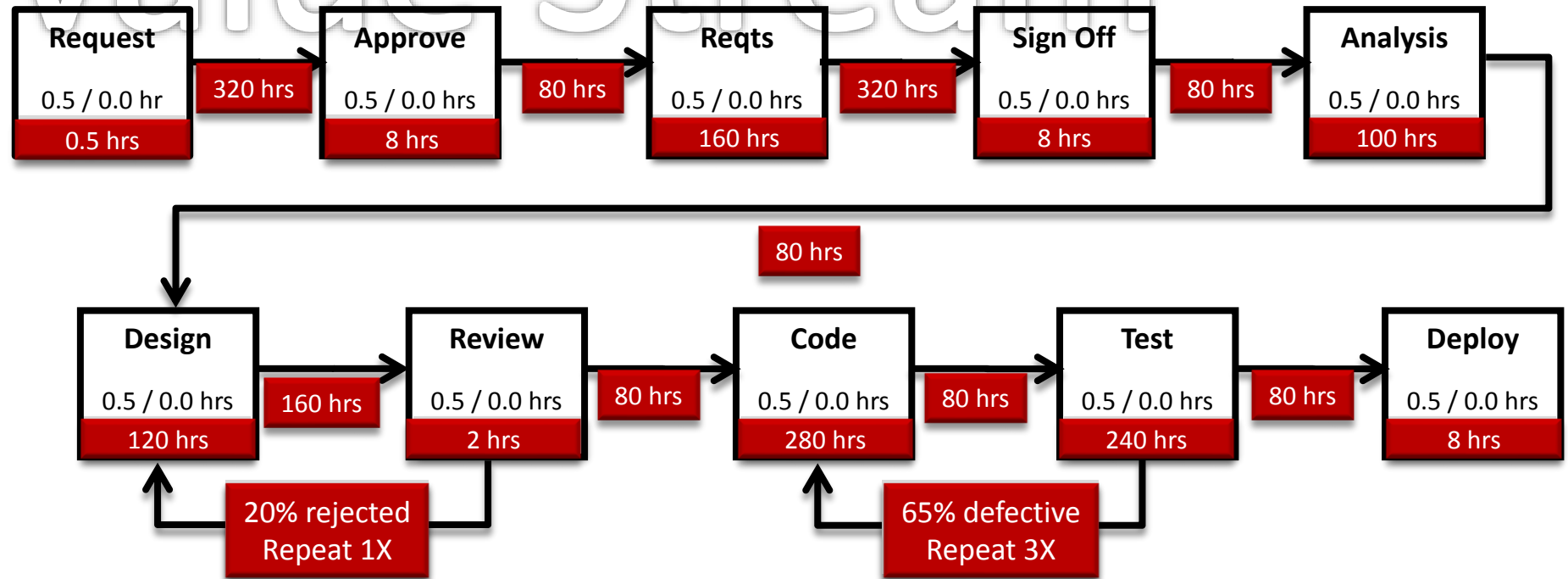


$$\text{PCE} = \frac{509 \text{ hrs}}{3433 \text{ hrs}} = 14.9\%$$

1. Identify the actions taken in the value stream
2. What was the real time from start to finish of the action?
3. What was the average time working on this vs. working on other things?
4. Identify time between actions
5. Identify any loop backs required
6. Calculate Process Cycle Efficiency:

$$\frac{\text{Avg Time Worked}}{\text{Total Cycle Time}}$$

Value Stream



Which gives a better return?

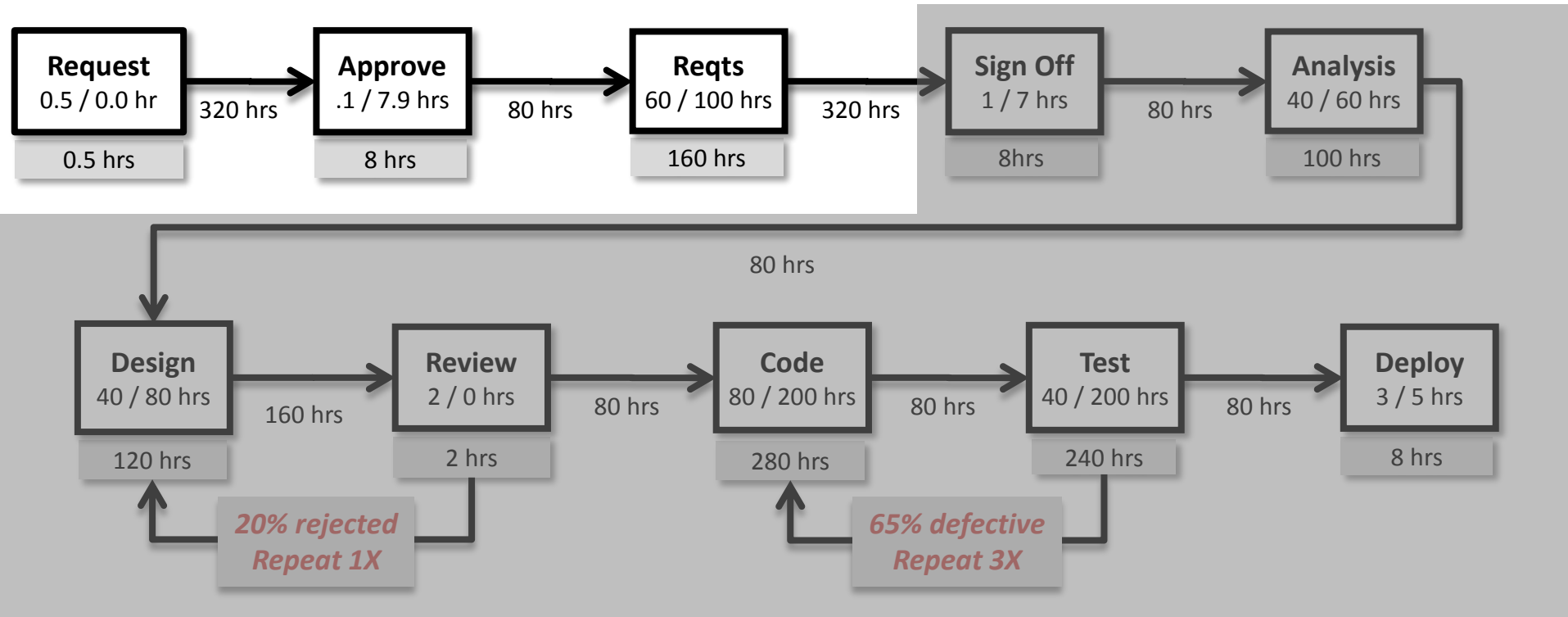
Getting better
at what you do

Eliminating
delays between
what you do

Lean
limits time

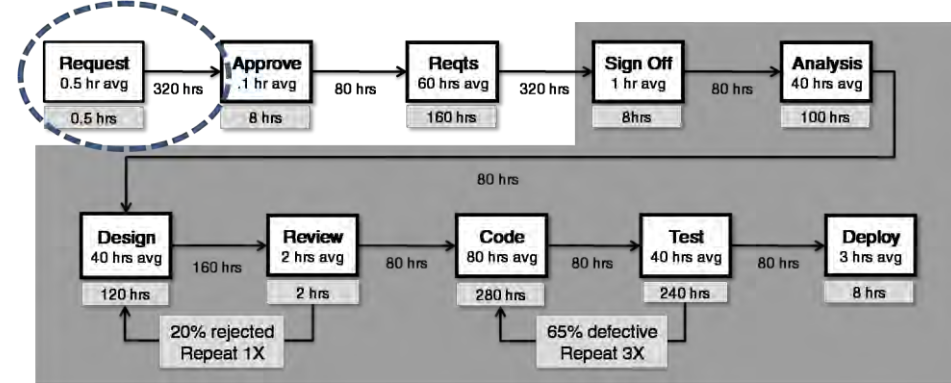
Kanban
limits queue size

Value Stream



Waiting for approval

-- Product Managers --



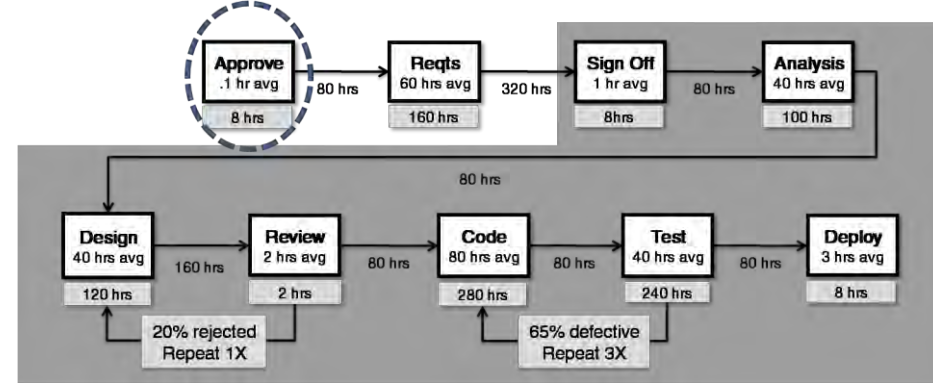
320

map value stream to kanban board

-- Product Managers --

Waiting for approval

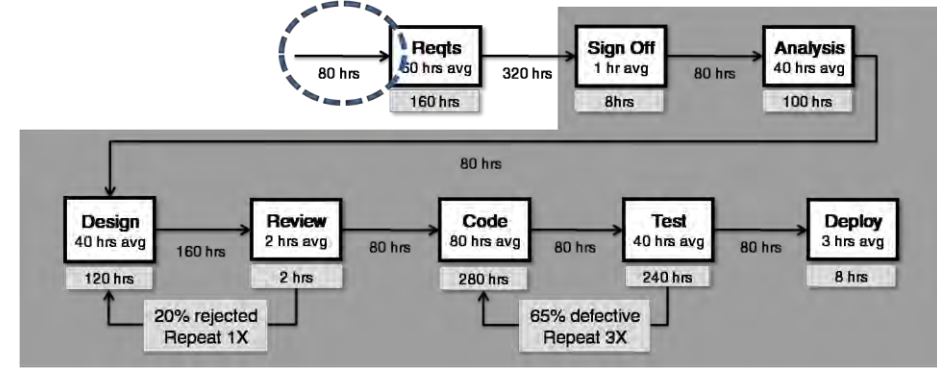
Working on approval



map value stream to kanban board

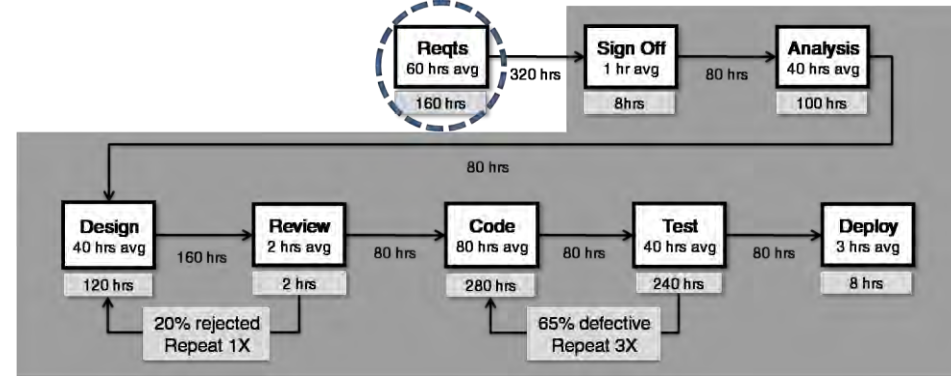
-- Product Managers --

Waiting for approval	
Working on approval	
Ready for Requirements	



map value stream to kanban board

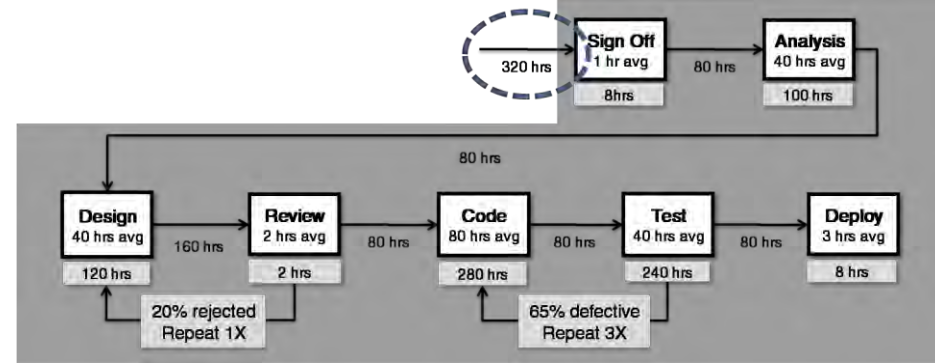
Waiting for approval	
Working on approval	
Ready for Requirements	
Requirements	



map value stream to kanban board

-- Product Managers --

Waiting for approval	
Working on approval	
Ready for Requirements	
Requirements	
Ready for sign off	



map value stream to kanban board

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.....

map value stream to kanban board

-- Product Managers --

----- Development Team -----

	Waiting for approval
	Working on approval
	Ready for Requirements
	Requirements
	Ready for sign off
	Sign Off
	Ready for Analysis
	Analysis
	Ready for Design
	Design
	Ready for Review
	Review
	Ready for Code
	Code
	Ready for Test
	Test
	Ready for Deploy
	Deploy
	Done

map value stream to kanban board