

Featureban

a simple kanban simulation game

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Visit agendashift.com/featureban for facilitation information and downloads.



Iteration 1: Visual management

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>		

Iteration 1: Visual management

Ready	In progress		Complete 😊
	()	()	
<ul style="list-style-type: none">Fruit & vegCredit card validationReturnsProject Neverland	<ul style="list-style-type: none">MB Celebrity home deliveryNT Chilli pepper lotterySC Sponsor a farmyard animal	<p>Visualise our work...</p>	

Iteration 1: Visual management

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>	<p>...and our workflow</p>	



redwood

What does the coin represent?

<https://www.flickr.com/photos/redwoodphotography/4356518997>



redwood

No coin? justflipacoin.com

<https://www.flickr.com/photos/redwoodphotography/4356518997>

Blocked work items

- After throwing tails, you may need to *block* one of your work items.
- In this game, *blocked* work items are marked with a “B”:



- Unblock by crossing out the “B”
- Here’s one that has been blocked, unblocked and re-blocked:



Heads I win...

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>	<p>MB Celebrity home delivery</p> <p>Advance one of my items...</p>	

Heads I win...

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p> <p>MB Project Neverland</p>	<p>...start a new one</p>	

Heads I win...

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>Ø</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>	<p>...or unblock one of my items</p>	

Heads I win...

Ready	In progress		Complete 😊
	()	()	
<ul style="list-style-type: none">Fruit & vegCredit card validationReturnsProject Neverland	<ul style="list-style-type: none">MB Celebrity home deliveryNT Chilli pepper lotterySC Sponsor a farmyard animal	<p>If you have no other option, pair up with someone who threw tails</p>	

Tails you lose?

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>B</p> <p>SC Sponsor a farmyard animal</p>	<p>Block one of your items (if you have one to block)</p>	

Tails you lose?

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT B Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p> <p>NT Project Neverland</p>	<p>AND start a new one</p>	

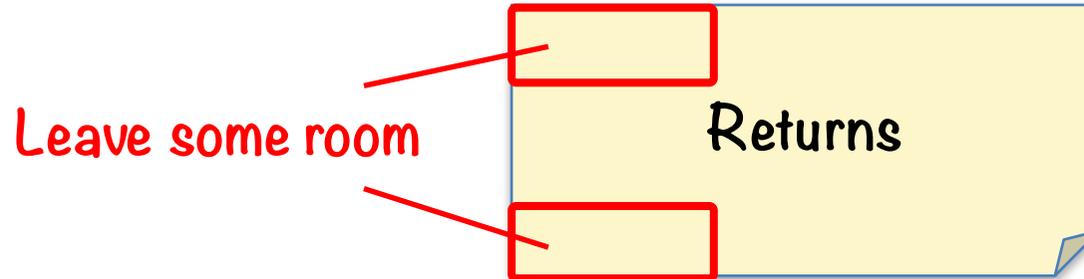
Setup

1. Get into groups of 3 to 5 people (4 is ideal)
2. Choose names for the two in-progress states on your board
 - “Design” & “Build”, “Prototype” & “Test” etc

Ready	In progress		Complete 😊
	???	()	

Setup (continued)

3. Quickly generate a backlog of work items – features, product lines, projects – for your supermarket website, a few per person. Write the name of each feature in the center of a sticky note (one per feature), leaving room top & bottom



Organize your work items

Ready	In progress		Complete 😊
	()	()	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>	<p>Begin with one initialed item per person in your first in-progress column</p>	

Organize your work items

Ready	In progress		Complete 😊
	()	()	
<div style="border: 2px solid red; padding: 5px;"><ul style="list-style-type: none">Fruit & vegCredit card validationReturnsProject Neverland</div>	<ul style="list-style-type: none">MB Celebrity home deliveryNT Chilli pepper lotterySC Sponsor a farmyard animal	<p>Leave the rest (un-initialed) in your Ready" column</p>	

Iteration 1: Visual management – play!

- After everyone has tossed their coins, discuss your intended moves in your daily *standup meeting*
- After your meeting, make your moves according to the rules (*policies*) below
- Repeat these simulated “days” until your facilitator tells you to stop
- Remember to *replenish* your Ready column with new items before it empties

Heads

Choose one (your items only):

- **Move** an unblocked work item rightwards
- OR **unblock** a blocked one
- OR **start** a new work item, remembering to initial it

Only if you are otherwise unable to move, **pair** up to help someone who threw tails

Tails

Do both (your items only):

- **Block** one of your currently unblocked items if you have one
- AND **start** a new work item, remembering to initial it

If you can, **pair** up with someone who threw heads and is otherwise unable to move



(Optional) Rule change!

- Good news – we've automated our testing and are catching most of our bugs before they add significant delay
- If you throw tails, re-toss your coin

Debrief

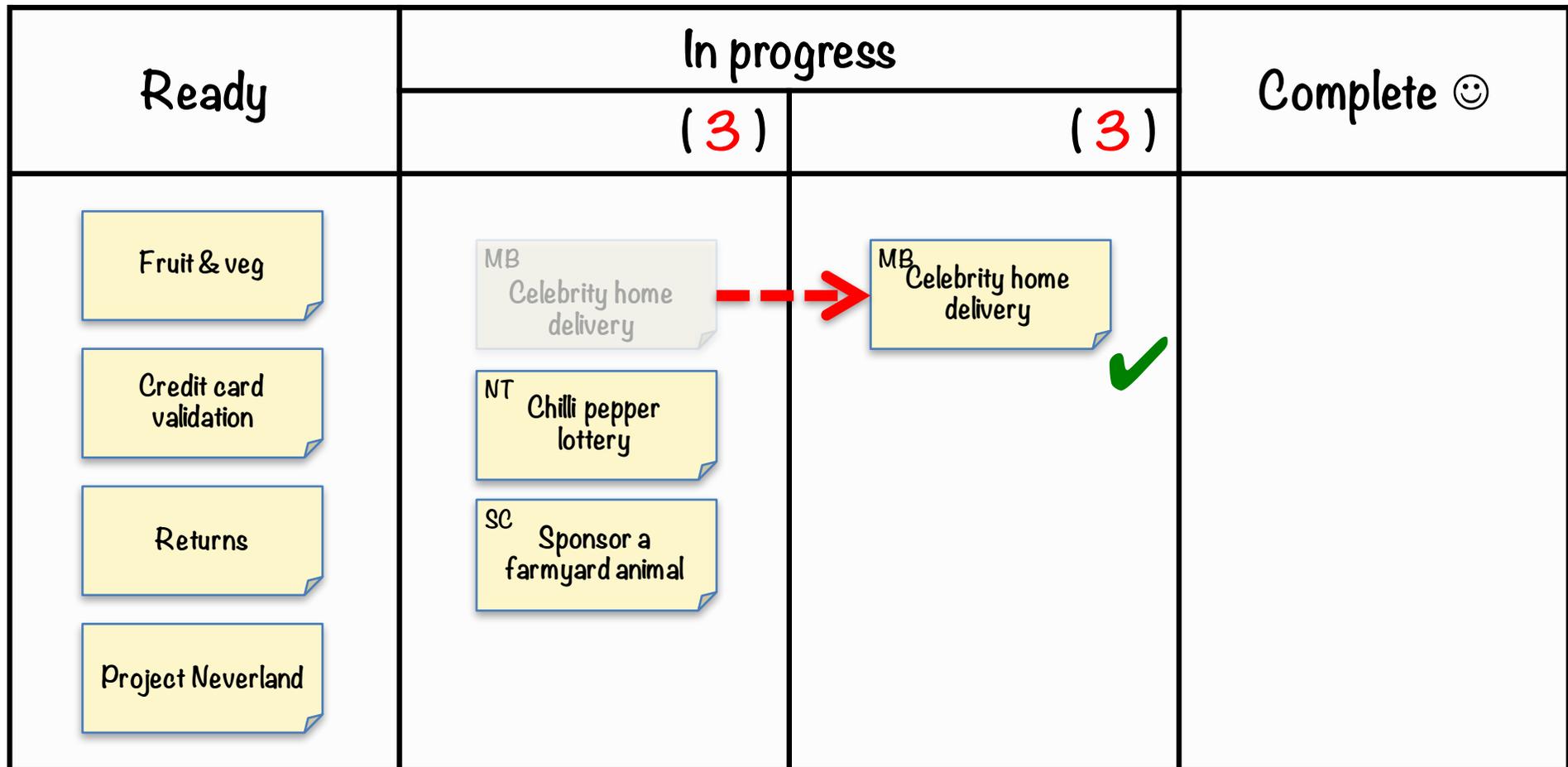
In your groups, list and prepare to report back:

- Your observations
 - How well did it work?
 - How did it feel?
- Workplace parallels

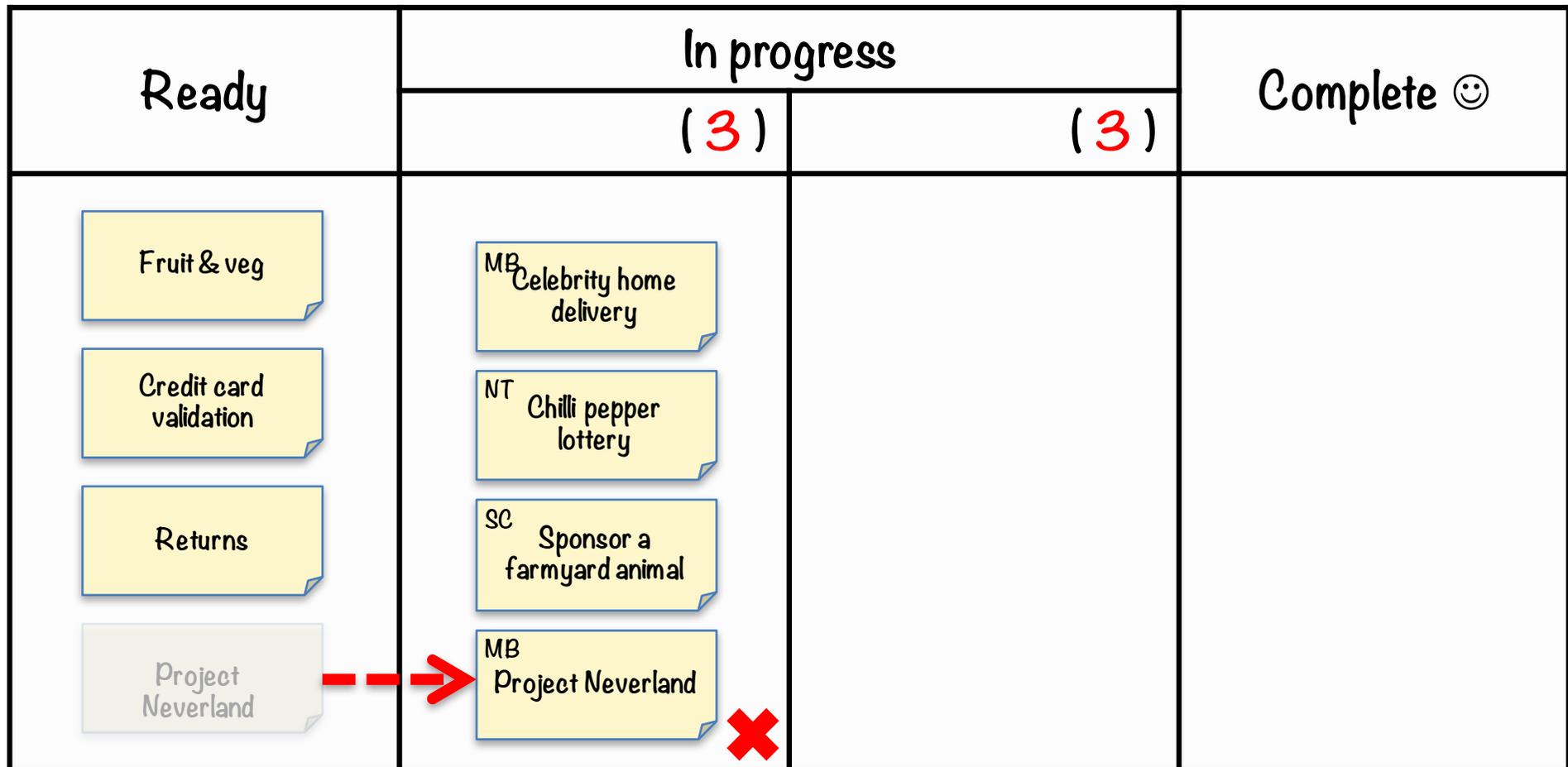
Iteration 2: WIP limits

Ready	In progress		Complete 😊
	(3)	(3)	
<p>Fruit & veg</p> <p>Credit card validation</p> <p>Returns</p> <p>Project Neverland</p>	<p>MB Celebrity home delivery</p> <p>NT Chilli pepper lottery</p> <p>SC Sponsor a farmyard animal</p>	<p>Same rules (policies) as before, but not moving work into columns that are at or above capacity</p>	

Iteration 2: WIP limits



Iteration 2: WIP limits



Iteration 2: WIP limits

Ready	In progress		Complete 😊
	(3)	(3)	
<ul style="list-style-type: none">Fruit & vegCredit card validationReturnsProject Neverland	<ul style="list-style-type: none">MB Celebrity home deliveryNT Chilli pepper lotterySC Sponsor a farmyard animal	?	

Iteration 2: WIP limits – play!

- Start with your board as it was at the end of iteration 1
- Same rules (*policies*) as before, but respect your WIP limits
 - ! **Do not move work into columns that are at or above capacity**
- Keep going until your facilitator tells you to stop
- Remember to *replenish* your Ready column with new items before it empties

Heads

Choose one (your items only):

- **Move** an unblocked work item rightwards
- OR **unblock** a blocked one
- OR **start** a new work item, remembering to initial it

Only if you are otherwise unable to move, **pair** up to help someone who threw tails

Tails

Do both (your items only):

- **Block** one of your currently unblocked items if you have one
- AND **start** a new work item, remembering to initial it

If you can, **pair** up with someone who threw heads and is otherwise unable to move



Debrief

Discuss and prepare to report back:

- How was it different?
 - Benefits?
 - Drawbacks?
- Variations on this theme?
 - Different limits or different structure to limits
 - Other mechanisms
- Workplace parallels

Cross-check with the Kanban Method

Against the three core practices that correspond to the **transparency** value:

CP1: Visualize

- ✓ Work items
- ✓ Work flow
- ✓ Work item state – where in the work flow, whether blocked

CP4: Make policies explicit

- ✓ The rules of the game

CP5: Implement feedback loops

- ✓ “Daily” (per-round) standup meeting
- ✓ Replenishment

Cross-check with the Kanban Method

Against the three remaining core practices and their corresponding four values (in bold) – **balance**, **flow**, **customer focus**, & **collaboration**:

CP2: Limit work-in-progress (WIP)

- ✓ Column limits, one way to **balance** workload vs capacity
- ✓ We made a true *kanban system*

CP3: Manage flow

- ? **flow** (smoothness, timeliness, economic outcomes)
- ✗ **customer focus** (customer need)

*CP6: Improve collaboratively, evolve experimentally
(using models and the scientific method)*

- ? We created conditions for **collaboration** in delivery
- ✗ Nothing collaborative, experimental or scientific about our change!

Iteration 3: Metrics

- Keep track of a “day number” for each round
- **Kanban system lead times, run chart, histogram**
 - Note the day number each work item enters and later leaves the WIP-limited part of the system
 - We will plot durations sequentially in a run chart and summarise in a histogram
- **Cumulative flow diagram (CFD), simple method**
 - Each day, count the number of work items in each column
 - We will plot in a stacked area chart, “Complete” at the bottom
- **Flow efficiency**
 - We will calculate the ratio of average *touch time* to average system lead time, expressed as a percentage

Iteration 3: Metrics

Featureban Metrics Capture Sheet

Column counts

Day	Ready	<Column 2>	<Column 3>	Complete :-)
1	9	3	2	6
2	9	3	0	8
3	8	2	0	10
4	7	1	1	11
5	5	1	0	13
6	2	3	1	13
7	6	3	2	14
8	6	3	1	15
9	6	2	0	16
10	5	3	1	16

Kanban system lead times

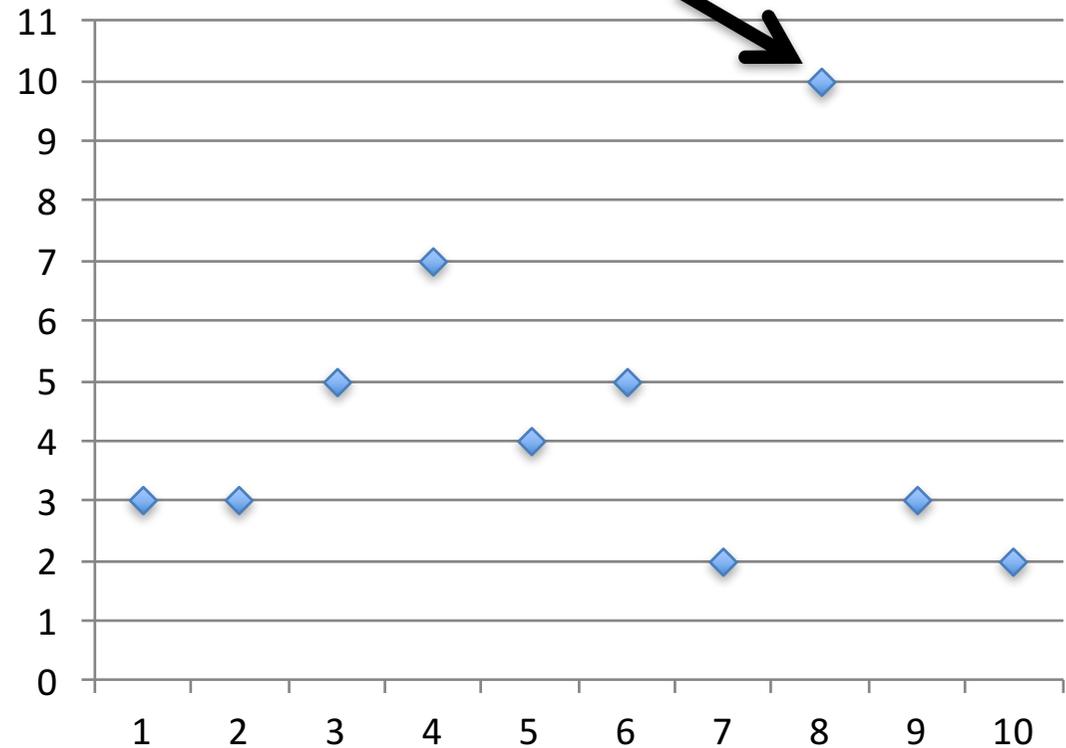
#	Start day	End day	Time
1	4	7	3
2	5	8	3
3	6	11	5
4	5	12	7
5	10	14	4
6	9	14	5
7	13	15	2
8	5	15	10
9	13	16	3
10	15	17	2

Iteration 3: Metrics – run chart

Kanban system lead times

#	Start day	End day	Time
1	4	7	3
2	5	8	3
3	6	11	5
4	5	12	7
5	10	14	4
6	9	14	5
7	13	15	2
8	5	15	10
9	13	16	3
10	15	17	2

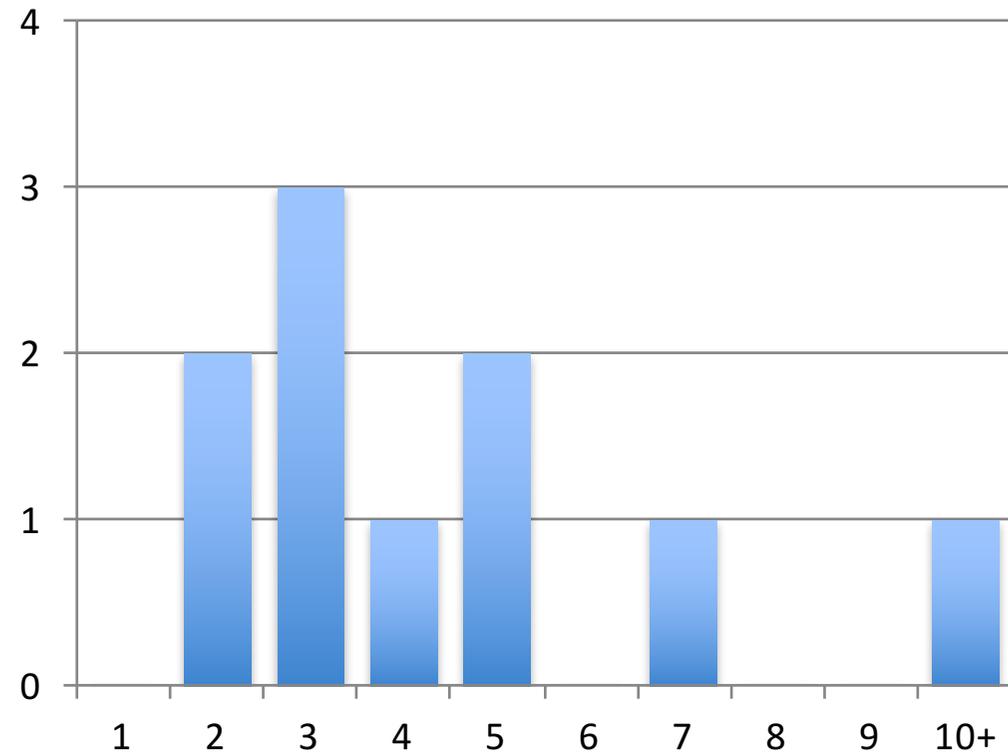
what happened here?



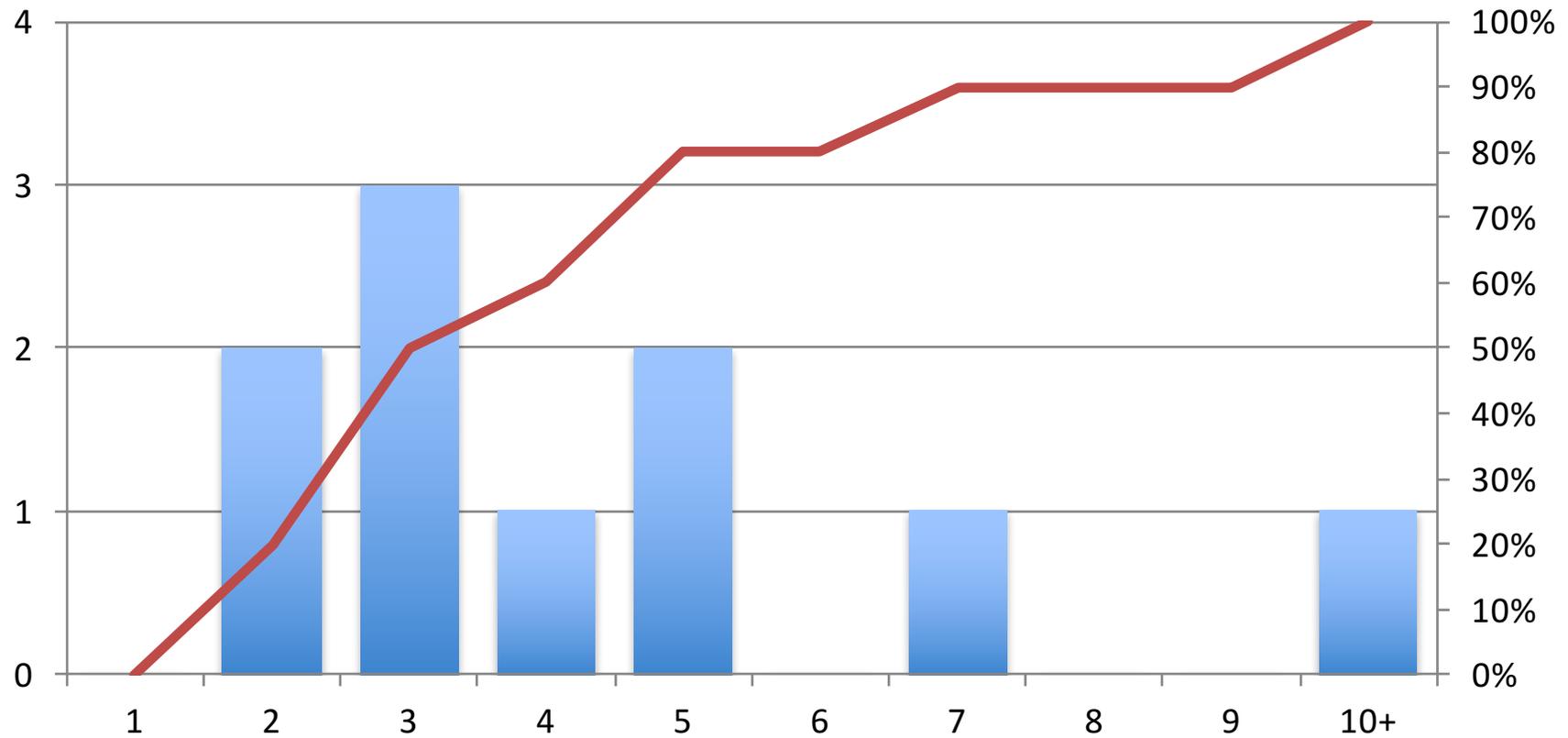
Iteration 3: Metrics – histogram

Kanban system lead times

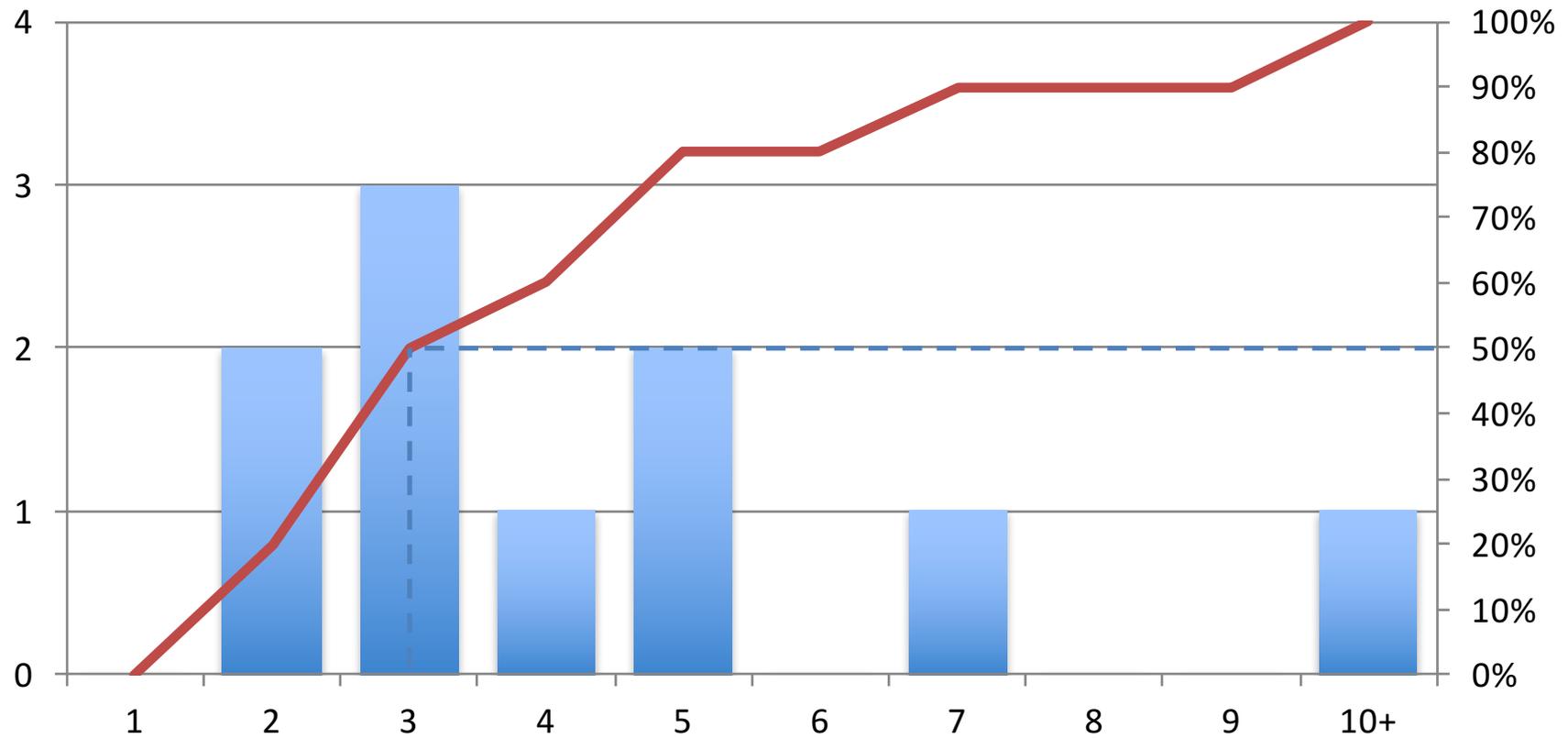
#	Start day	End day	Time
1	4	7	3
2	5	8	3
3	6	11	5
4	5	12	7
5	10	14	4
6	9	14	5
7	13	15	2
8	5	15	10
9	13	16	3
10	15	17	2



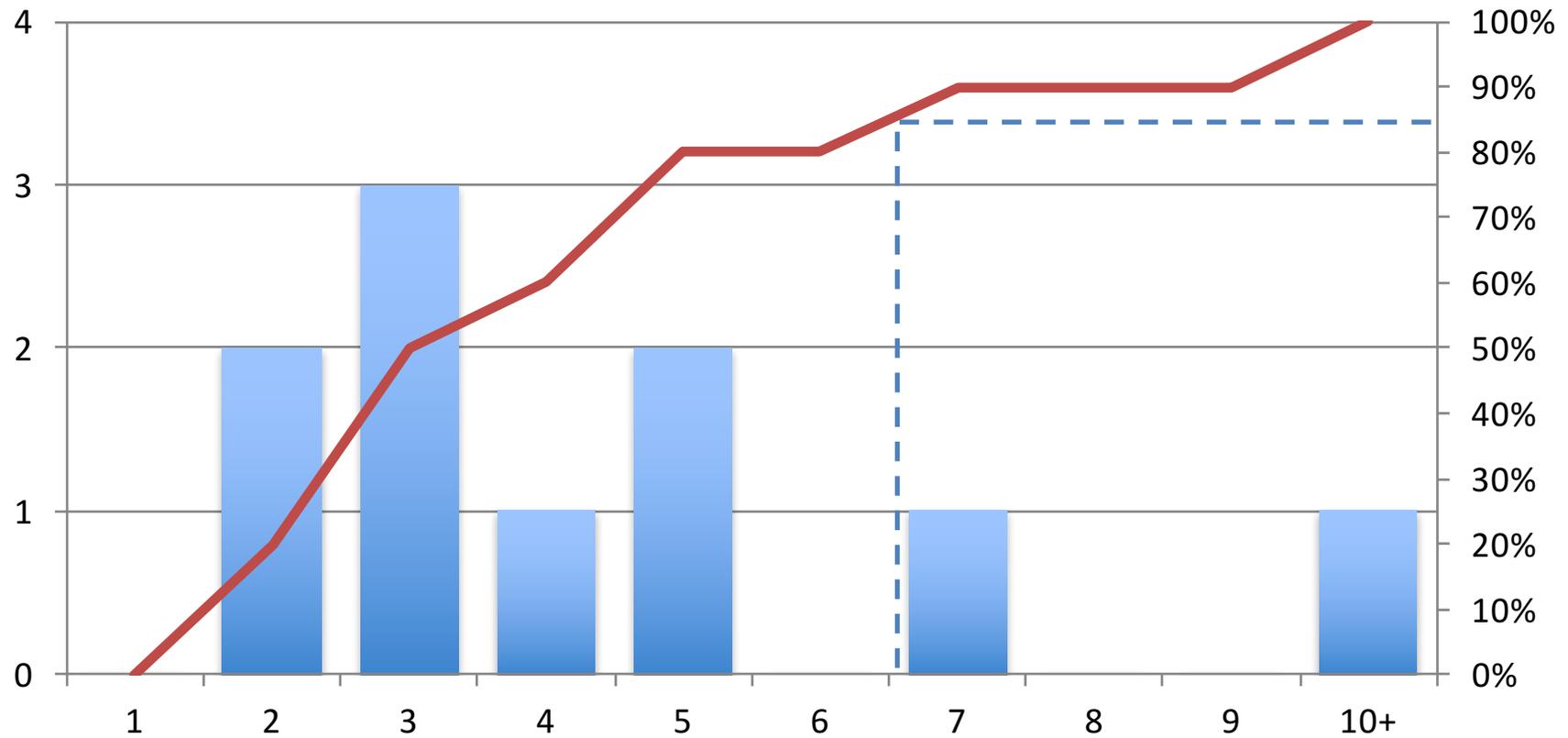
Iteration 3: Metrics – histogram



Iteration 3: Metrics – histogram



Iteration 3: Metrics – histogram



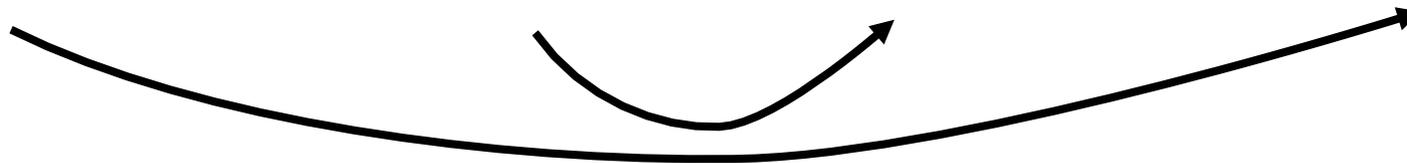
Iteration 3: Metrics – cumulative flow diagram (CFD)

Column counts

Day	Ready	Design	Build	Complete :-)
1	9	3	2	6
2	9	3	0	8
3	8	2	0	10
4	7	1	1	11
5	5	1	0	14
6	2	3	1	14
7	6	3	2	14
8	6	3	1	15
9	6	3	0	16
10	5	3	1	16

Reversed

Day	Complete :-)	Build	Design	Ready
1	6	2	3	9
2	8	0	3	9
3	10	0	2	8
4	11	1	1	7
5	14	0	1	5
6	14	1	3	2
7	14	2	3	6
8	15	1	3	6
9	16	0	3	6
10	16	1	3	5

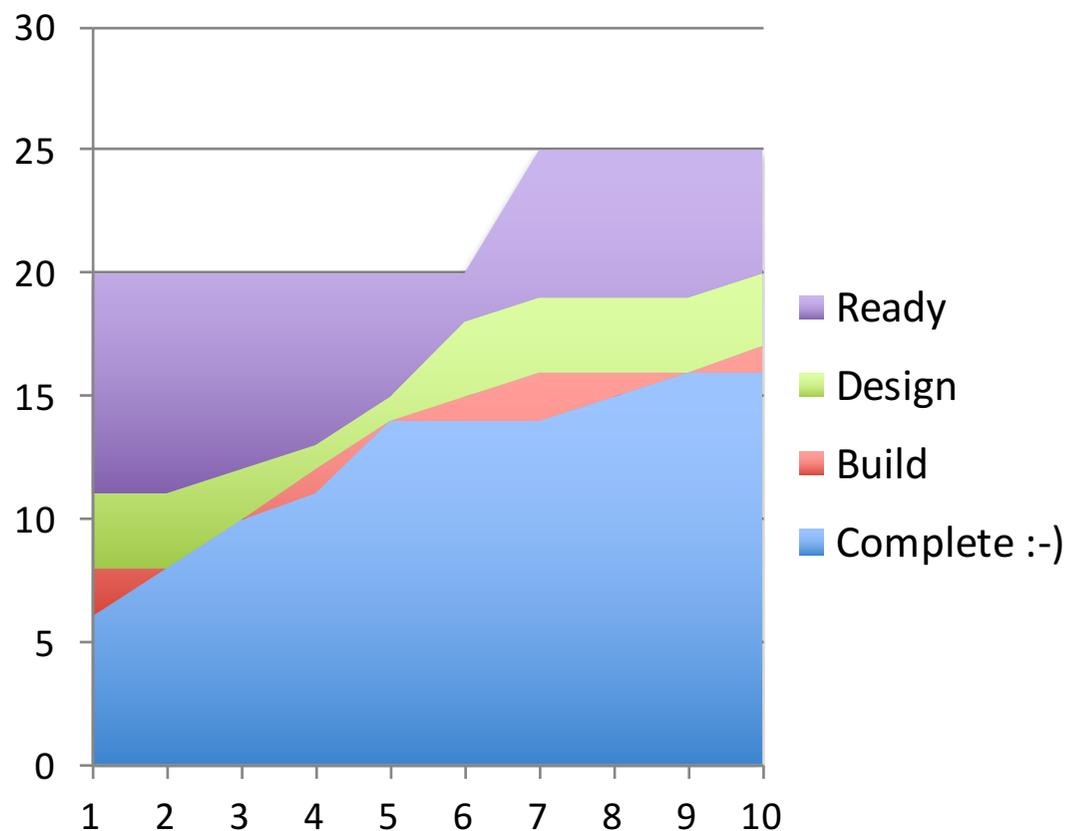


Cheating at CFDs: reverse columns, then stacked area chart

Iteration 3: Metrics – cumulative flow diagram (CFD)

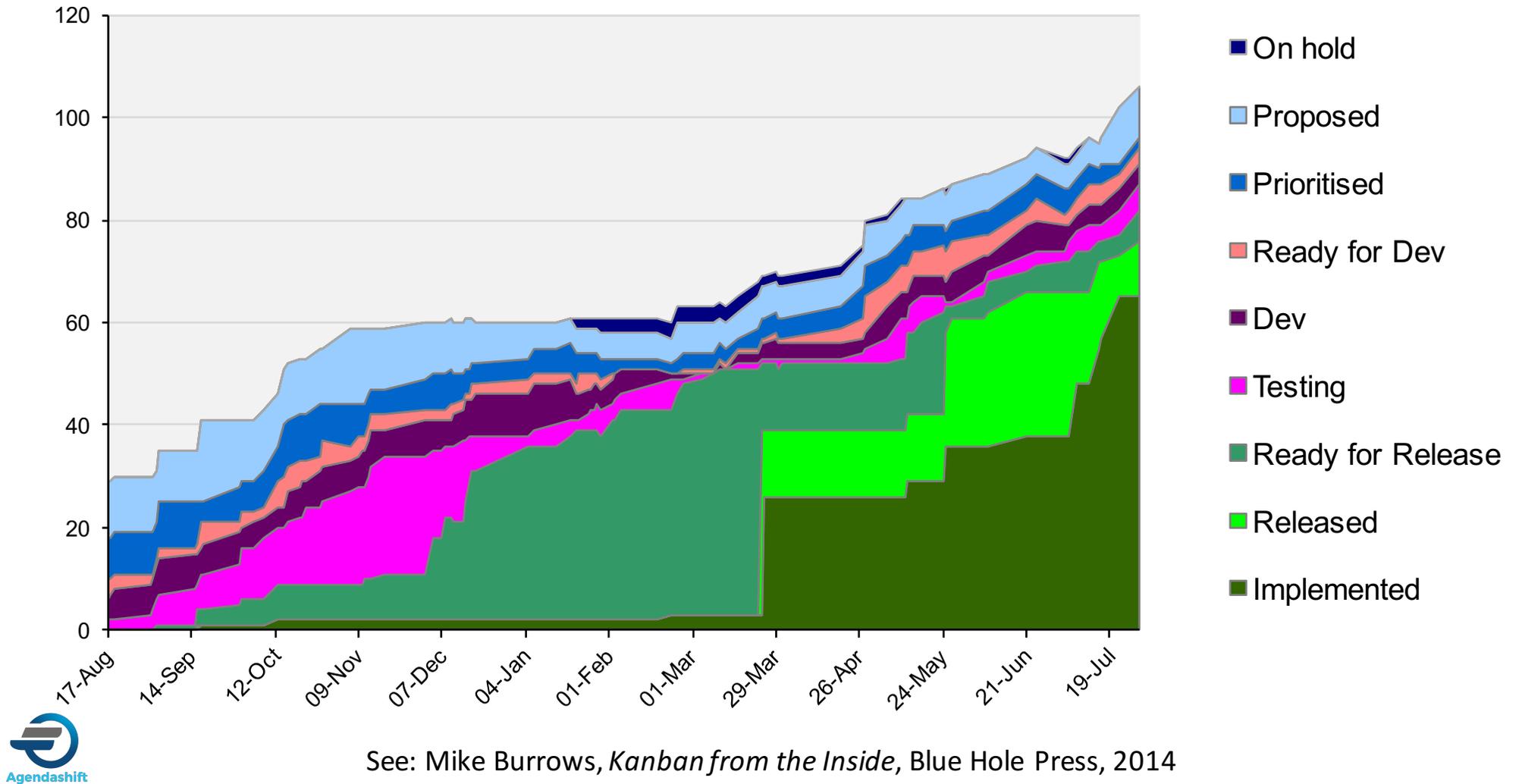
Reversed

Day	Complete :-)	Build	Design	Ready
1	6	2	3	9
2	8	0	3	9
3	10	0	2	8
4	11	1	1	7
5	14	0	1	5
6	14	1	3	2
7	14	2	3	6
8	15	1	3	6
9	16	0	3	6
10	16	1	3	5



Cheating at CFDs: reverse columns, then stacked area chart

Iteration 3: Metrics – cumulative flow diagram (CFD)



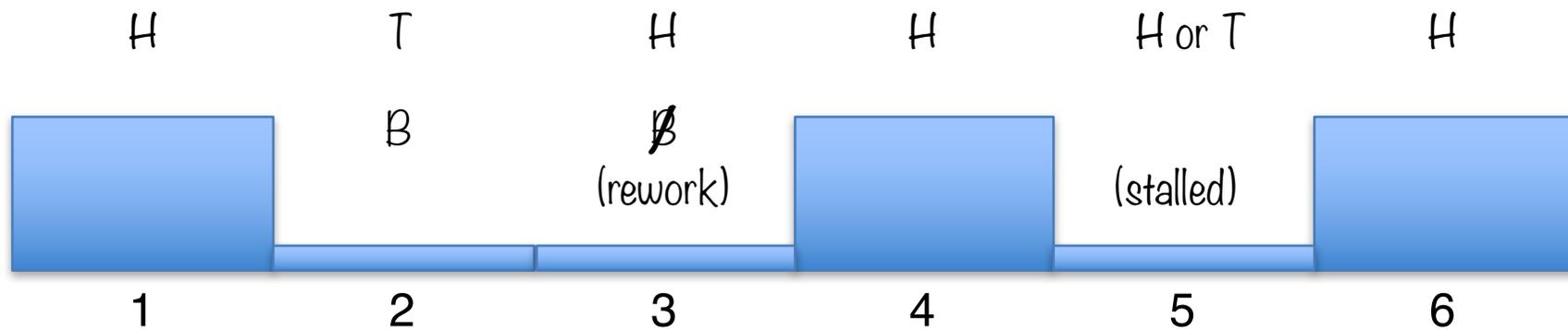
See: Mike Burrows, *Kanban from the Inside*, Blue Hole Press, 2014

Iteration 3: Metrics – key statistics

Mean lead time:	4.4 days
Median lead time:	3.5 days
85th percentile:	6.3 days
Flow efficiency:	68%

 **highly suspicious!**

Iteration 3: Metrics – flow efficiency



- Heads: 4 or 5 out of 6
- Flow efficiency: $3/6 = 50\%$

(Meta) Iteration 4: Bigger-picture issues

Take one or more of the following issues and propose a Featureban-based simulation to explore it:

1. Sequencing / prioritising
2. Improving performance
 - cycle time, delivery rate, predictability, customer satisfaction
3. Delivering against competing objectives
 - different projects, stakeholders, types of work etc
4. Accommodating different kinds of customer expectations
 - *classes of service*
5. Upstream/downstream teams
6. Dependencies on another team for part of the process

Agendashift Values-based delivery assessment

In your own time, assess the game scenario

- Go to agendashift.com/featureban
- Click “Assess the Featureban scenario (iteration 2 onwards)”

For each of the six categories (values):

- Score the three prompts on the given 1 to 4 scale
- Which prompts would you prioritise for improvement? (“Star” them)
- What improvements would you make in those areas?

Go to agendashift.com/2016 for the real-world global survey

Run your own Featureban session

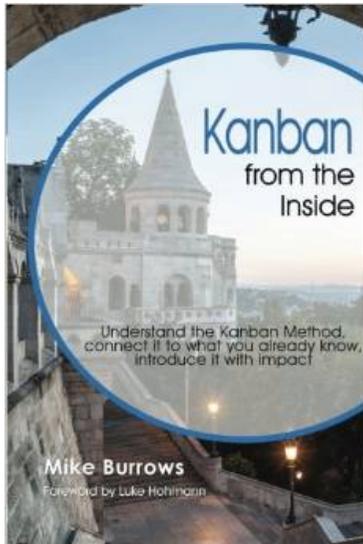
- Go to agendashift.com/featureban
- Read the facilitation notes
- Register to receive the files
- Adapt to your needs
- Let us know how you get on!

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By the same author



Kanban from the Inside

Mike Burrows, foreword by Luke Hohmann,
Blue Hole Press September 2014

“Clear, concise, beautifully structured summary of the essentials”

“...has by far the most extensive and up-to-date coverage of Kanban than anything published to date”

“The definitive Kanban textbook”



Agendashift™

Transforming Lean-Agile transformation

Values-based
Delivery

Values-based
Change

Values-based
Leadership

- agendashift.com/paper
6+1 Essential strategies for successful Lean-Agile transformation
- agendashift.com/2016
Values-based delivery assessment, 2016 survey