

# DISCOVERY

An unsung hero in a world of  
uncertainty



- ↳ Introductions
- ↳ Set the stage
- ↳ Level Setting / Definitions
- ↳ Benefits of good discovery
- ↳ Antipatterns of good discovery
- ↳ Past project evidence
- ↳ Review / Q&A

# AGENDA

# INTRODUCTIONS



Bob English

Bob has had a varied career in IT. He has been an Agile practitioner for over 10 years and an enthusiast for almost as long. He is also a certified AKT and Agile Coach



Bill Roberts

Bill has a finance background and has been working with or in IT for over a decade. Bill is a certified AKT and Agile leader

# SET THE STAGE

**19%** decrease in  
Lead Times

**1200%**  
improved  
predictability



You will love it




Your team will love it



Your PO will love it

# LEVEL SETTING / DEFINITIONS

- ↳ General “Kanban” Practices
  - ↳ Discovery
  - ↳ System Lead Time and Customer Lead Time
  - ↳ Control Chart
    - ↳ Throughput
    - ↳ Predictability
  - ↳ Policies
- 
- A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

# GENERAL “KANBAN” PRACTICES

Shallow

1. Visualize
2. Limit work-in-progress
3. Manage flow
4. Make policies explicit
5. Implement feedback loops
6. Improve collaboratively, evolve experimentally



Deep

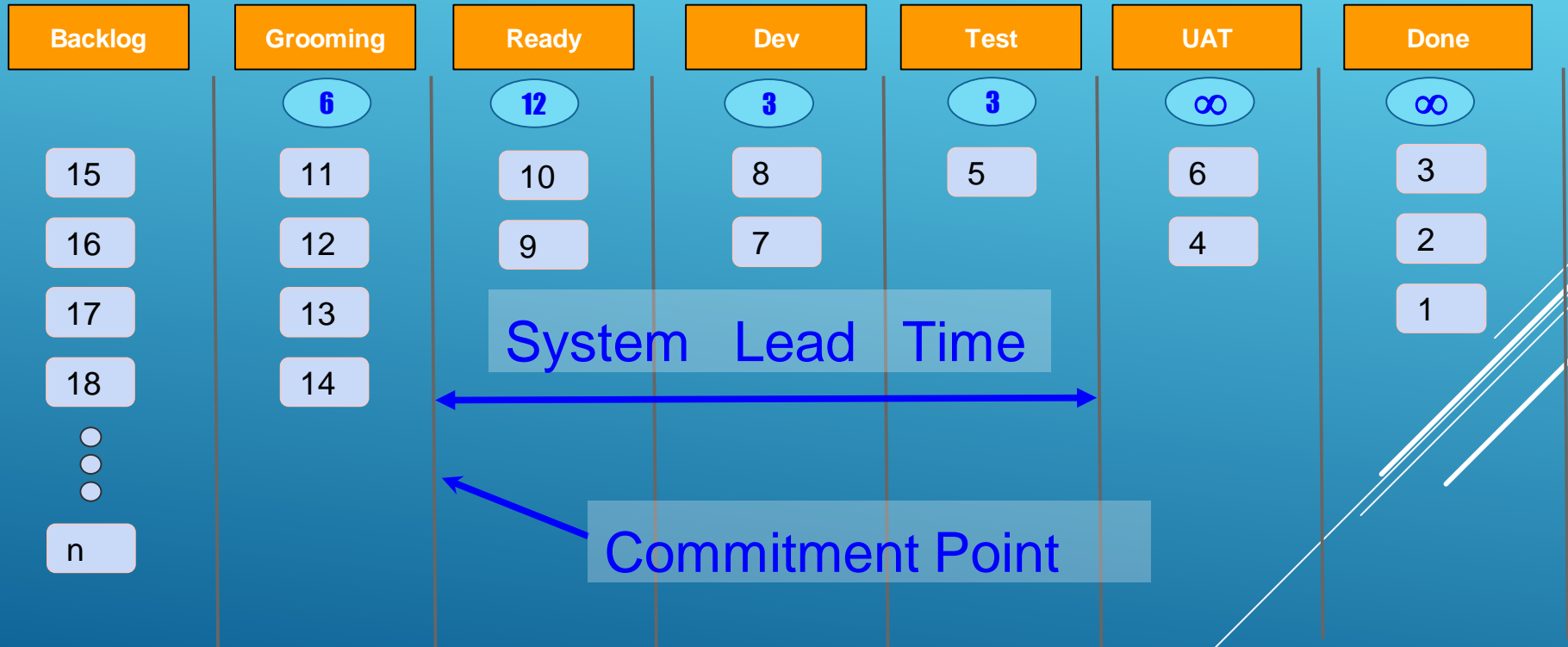


# DISCOVERY



- ↳ What are we talking about?
  - ↳ All of the work required prior to **commitment**
- ↳ What are the team's requirements before work is truly ready?
  - ↳ Business Analysis - Good description of the work, AC, ATDD, etc...
  - ↳ Design (UX, Arch, Security, etc...)
  - ↳ Dependency and Risk management
  - ↳ Groomed (Estimated, Sized, etc..)
  - ↳ All of the up-front work that is often treated as non-development work

# SYSTEM LEAD TIME

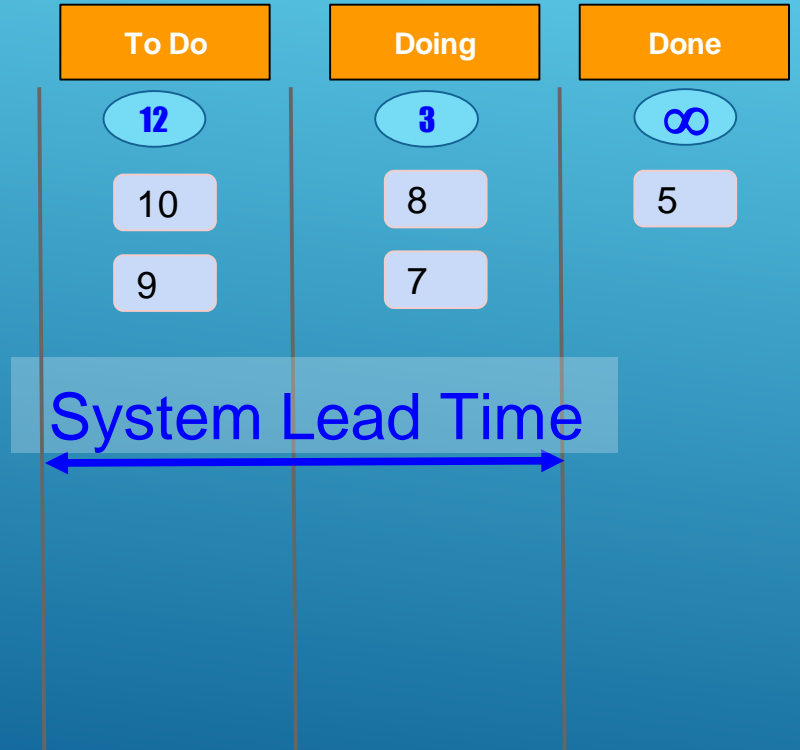




# CUSTOMER LEAD TIME



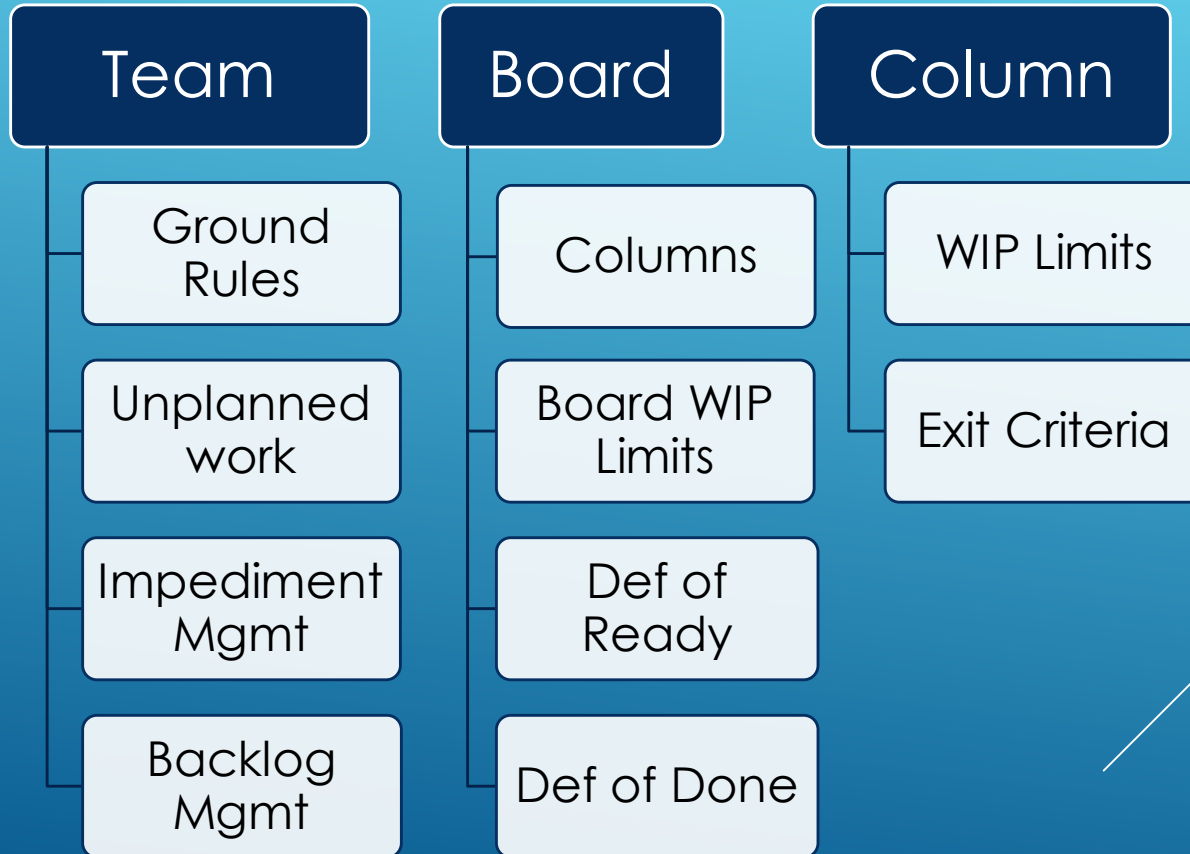
# SYSTEM LEAD TIME - SCRUM



# LEAD TIME, THROUGHPUT, AND PREDICTABILITY



# POLICIES

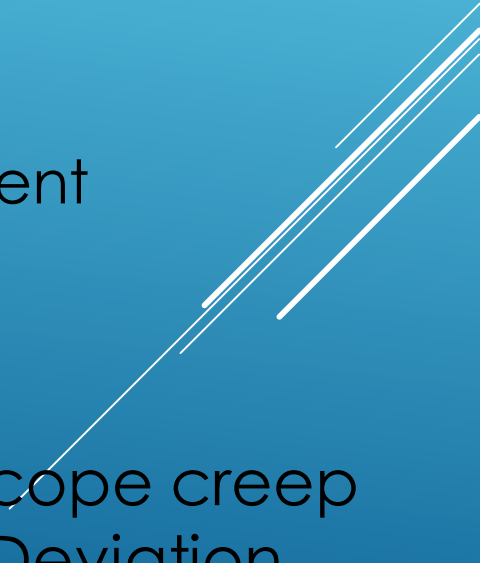


# DISCOVERY BENEFITS

- ↳ Greater predictability
- ↳ Improved Lead Times
- ↳ Optimization of flow
  - Reduce/minimize bottlenecks and constraints
- ↳ Clearer visualization of the workflow
  - More organization and less clutter
  - Team policies
    - Empowerment
    - Continuous improvement
    - Happiness



# ANTIPATTERNS

- ↳ Unknown Work discovered post-commitment
  - ↳ Dependencies
    - ↳ Found and/or managed post-commitment
    - ↳ Managed within dev system (sprint)
  - ↳ Risks and assumptions
    - ↳ Found and/or managed post-commitment
    - ↳ Managed within dev system (sprint)
  - ↳ Evidenced by
    - ↳ Plateau Throughput/Lead Times
    - ↳ Missed Commitments, story splitting, scope creep
    - ↳ Poor predicatability - Wide Standard Deviation
- 

# HO DO WE OPERATIONALIZE BETTER DISCOVERY?

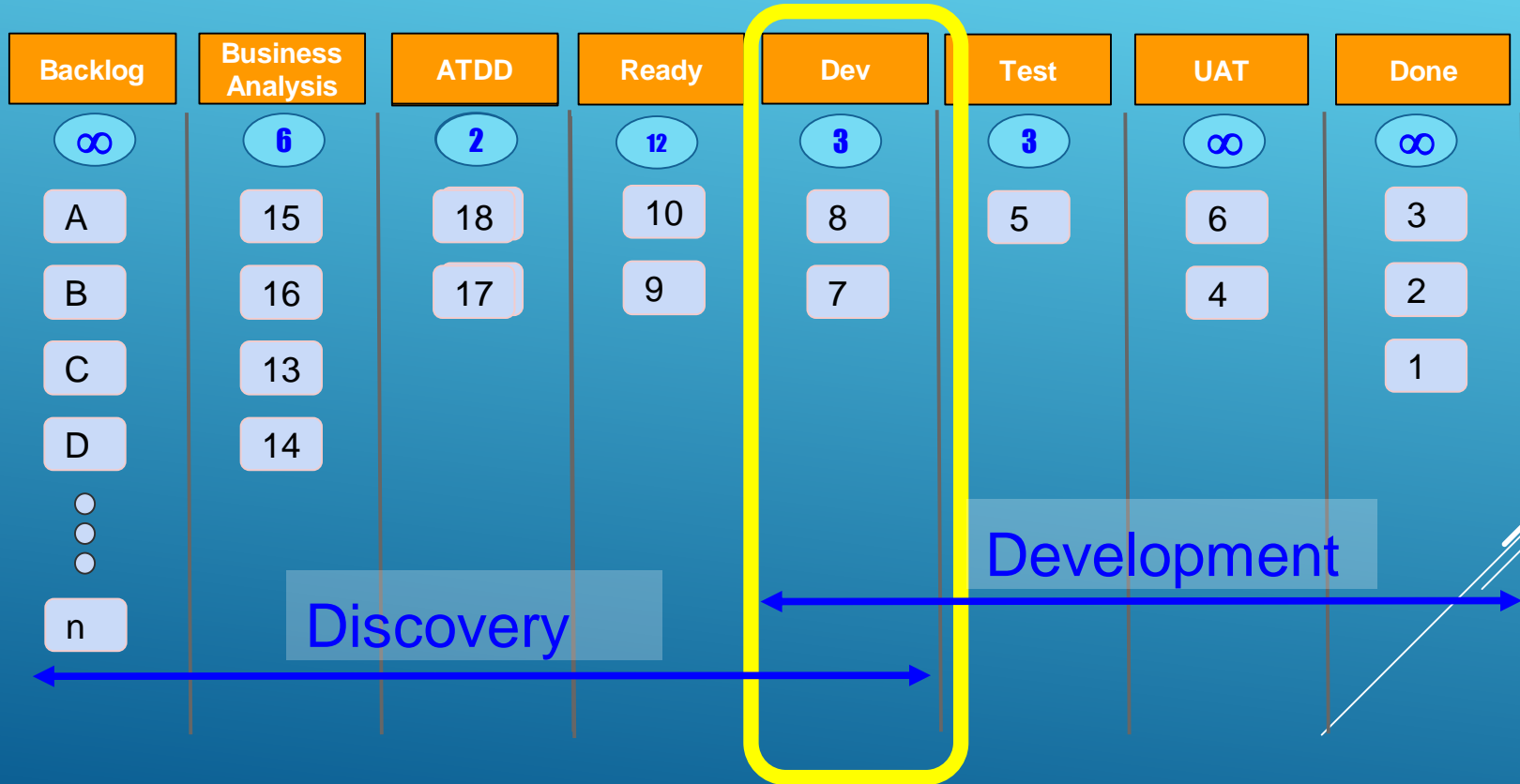


# VISUALIZE WORKFLOW - CONCEPT TO DONE





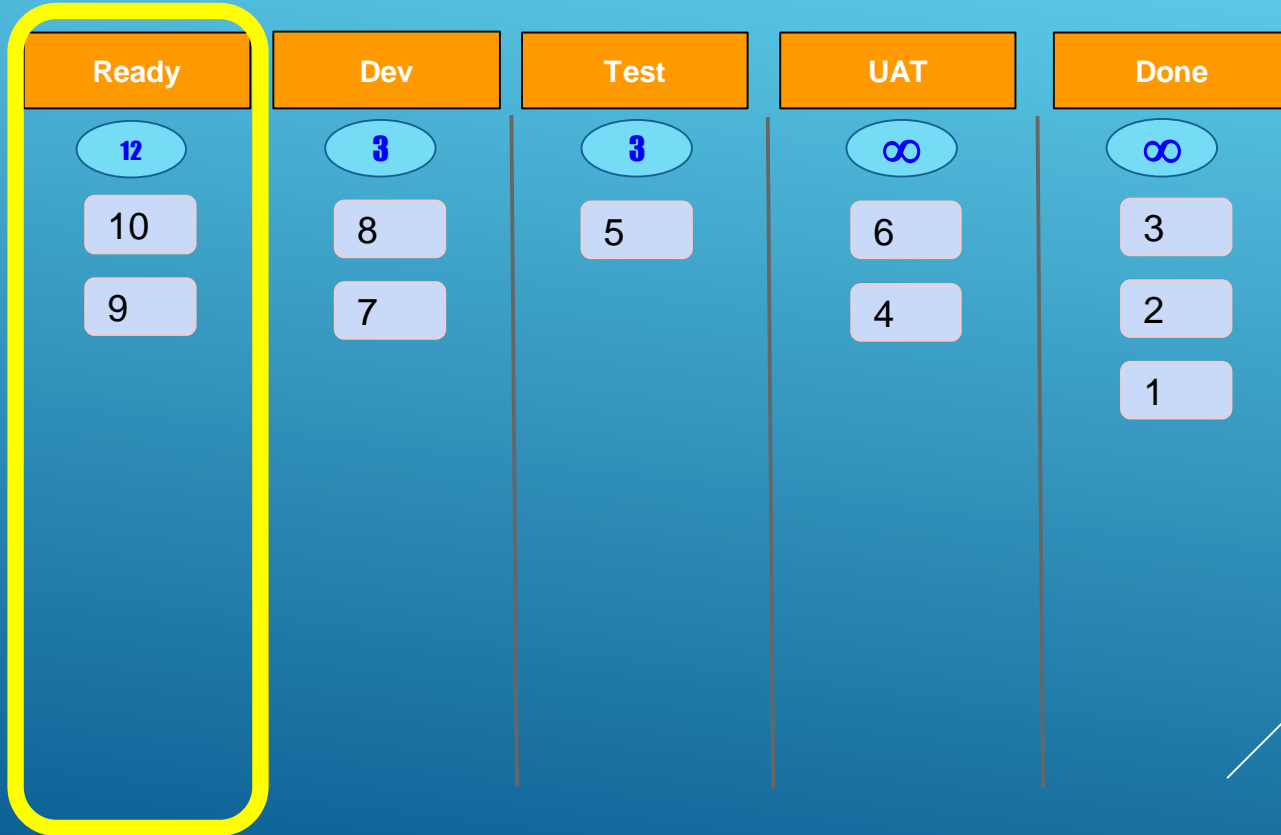
# VISUALIZE WORKFLOW – BREAK GROOMING UP



# DISCOVERY VISUALIZATION

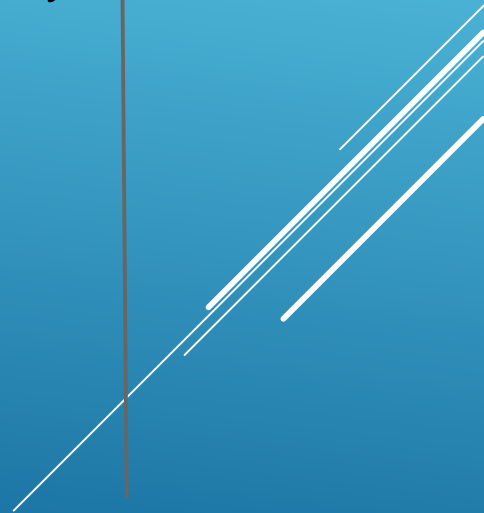


# STANDUP VISUALIZATION



# EXIT POLICIES

Backlog	Business Analysis	Technical Design	ATDD	Ready
<ul style="list-style-type: none"><li>• Highest Priority</li><li>• INVEST</li></ul>	<ul style="list-style-type: none"><li>• AC</li><li>• Persona</li></ul>	<ul style="list-style-type: none"><li>• Design</li><li>• Tech Risk</li></ul>	<ul style="list-style-type: none"><li>• ATDD</li><li>• Team Thumbs-up</li></ul>	<ul style="list-style-type: none"><li>• Highest Priority</li></ul>



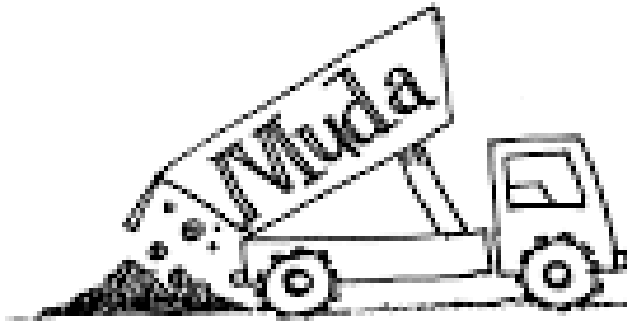
# WHAT SHOULD I CONSIDER MOVING INTO DISCOVERY?

## Team Decisions

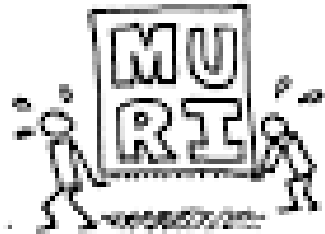
- ↳ Bottlenecks
- ↳ Constraints
- ↳ Dependencies
- ↳ Rework
- ↳ Waste



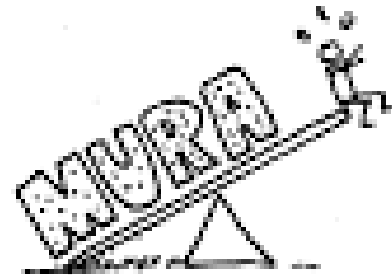
# LOOK FOR MUDA, MURI, AND MURA



Non-VALUE ADDING  
ACTIVITIES



OVERSIZING

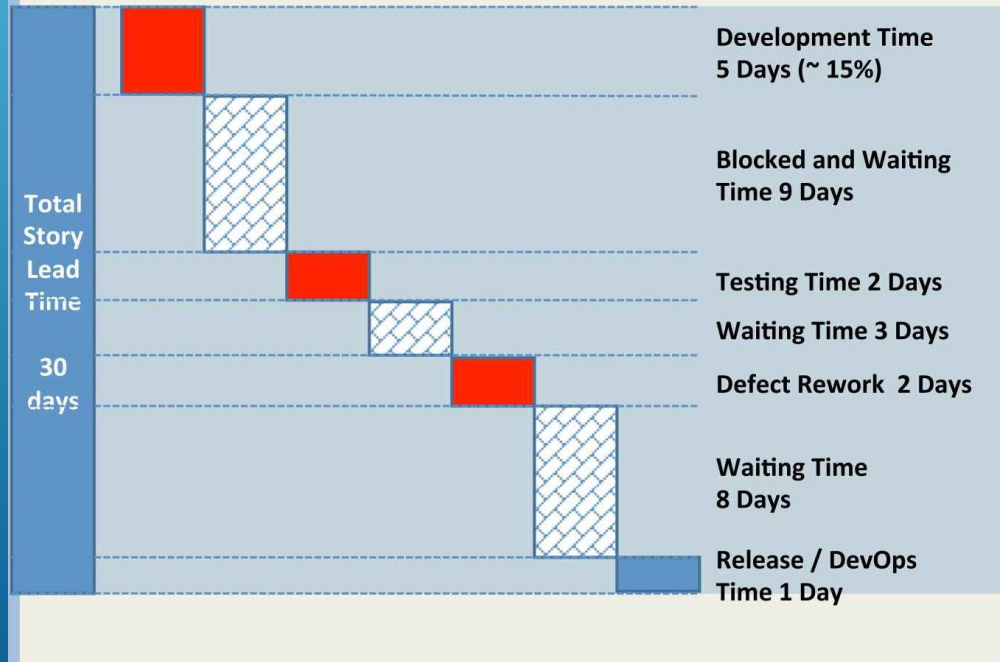


IMBALANCE,  
UNEVEN, VERTICAL

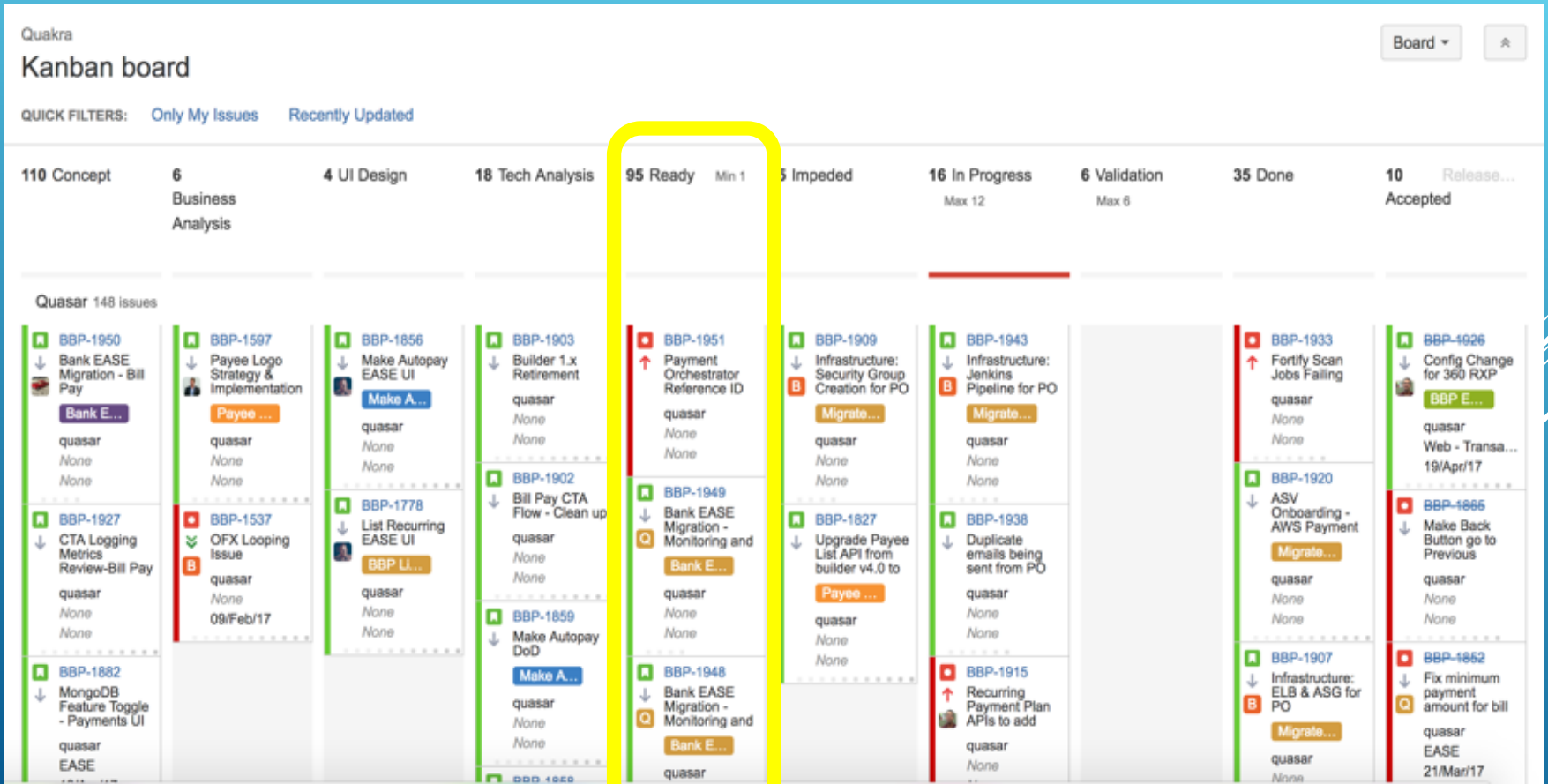
# WASTE

# INDUSTRY WASTE

Courtesy Troy Magennis  
[focusedobjective.com](http://focusedobjective.com)



# FROM CONCEPT TO DONE – BOARD VISUALIZATION





# DISCOVERY VISUALIZATION

Discovery

## Kanban board

Board

QUICK FILTERS: Only My Issues Recently Updated

52 Concept      6 Business Analysis      4 UI Design      18 Tech Analysis      95 Ready      Release...

~ Quasar 59 issues

- BBP-1137  
Entitlement requirement for Payment List and Payment Detail  
BBP Hub
- BBP-1455  
Transite/PO Not Updating Customer Email
- BBP-1484  
Analysing PO and Transite code
- BBP-1555  
500 Error Code Changes
- BBP-1682  
Pull additional fields for Payment Market

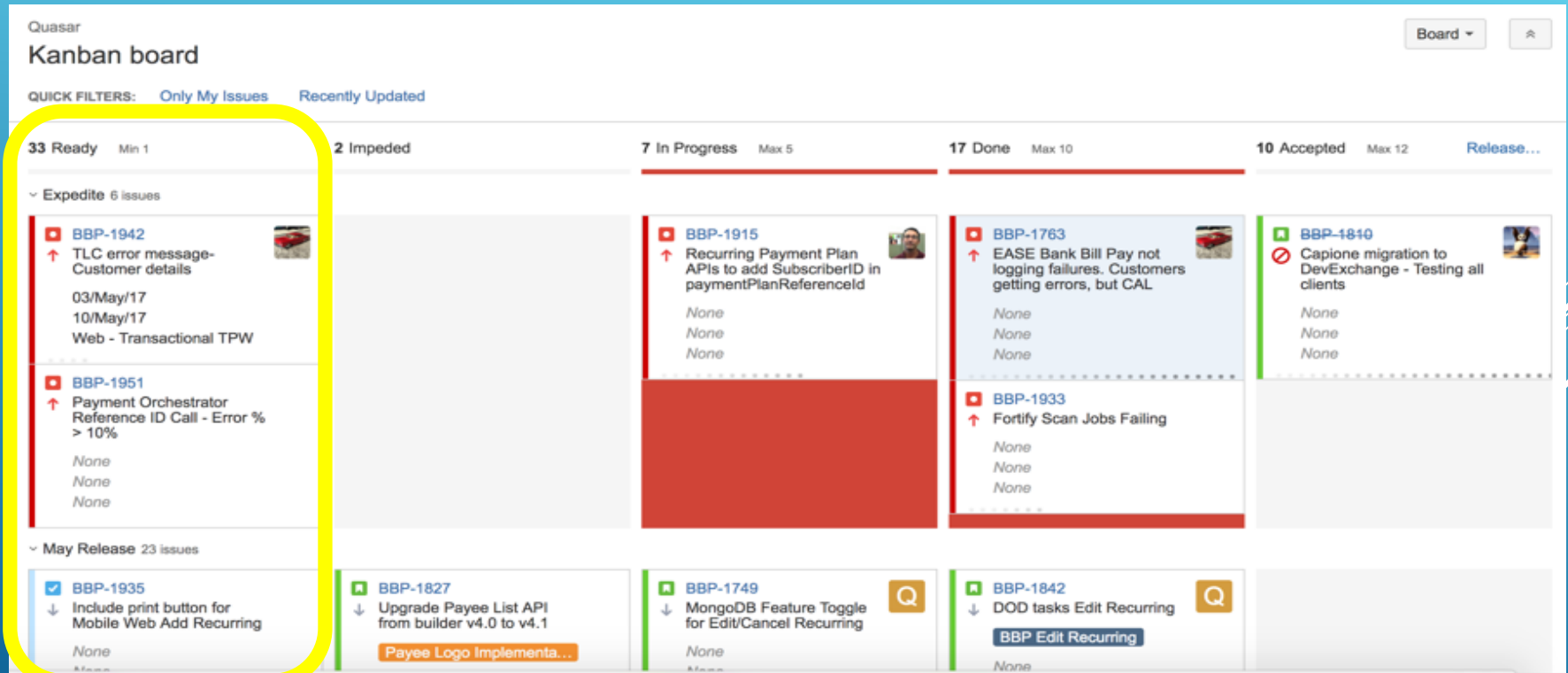
- BBP-1597  
Payee Logo Strategy & Implementation  
Payee Logo Implementa...
- BBP-1537  
OFX Looping Issue

- BBP-1778  
List Recurring EASE UI  
BBP List Recurring
- BBP-1856  
Make Autopay EASE UI  
Make Autopay

- BBP-1779  
API + Ninja Change
- BBP-1857  
Make Autopay API  
Make Autopay
- BBP-1858  
Make Autopay OL  
Make Autopay
- BBP-1859  
Make Autopay DoD  
Make Autopay
- BBP-1902  
Bill Pay CTA Flow - Clean up

- BBP-1935  
Include print button for Mobile Web Add Recurring
- BBP-1939  
Research Bill Pay Center - TLC Message Displayed
- BBP-1849  
Payment Plan List API - Add a status filter as query parameter
- BBP-1912  
Infrastructure: New Relic for AWS PO  
Migrate PO to AWS
- BBP-1948  
Bank EASE Migration - Monitoring and Alerting -

# DEVELOPMENT VISUALIZATION

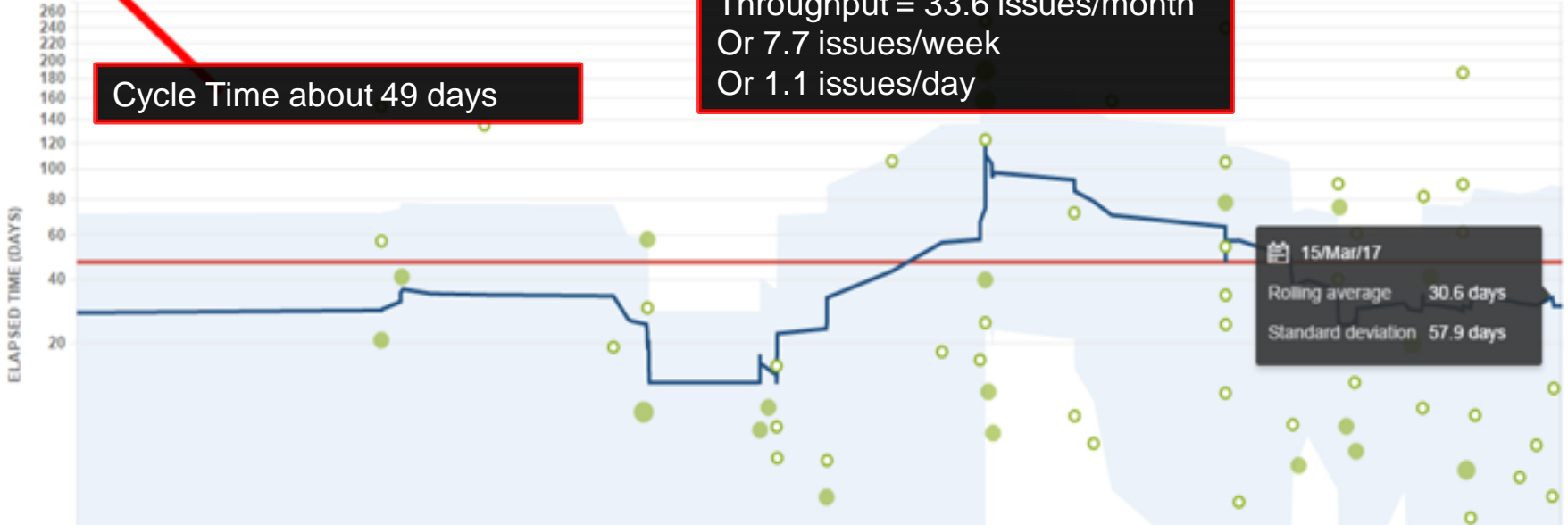


# ORIGINAL LEAD TIME / PREDICTABILITY

16/Dec/16 to 15/Mar/17 (Past 3 Months)

6w 5d 1h average 2w 2d 3h median < 1m min time 35w 3d 9h max time 101 issues

○ Issue  
● Cluster of Issues  
/ Average  
— Rolling average  
19 issue window  
■ Standard deviation

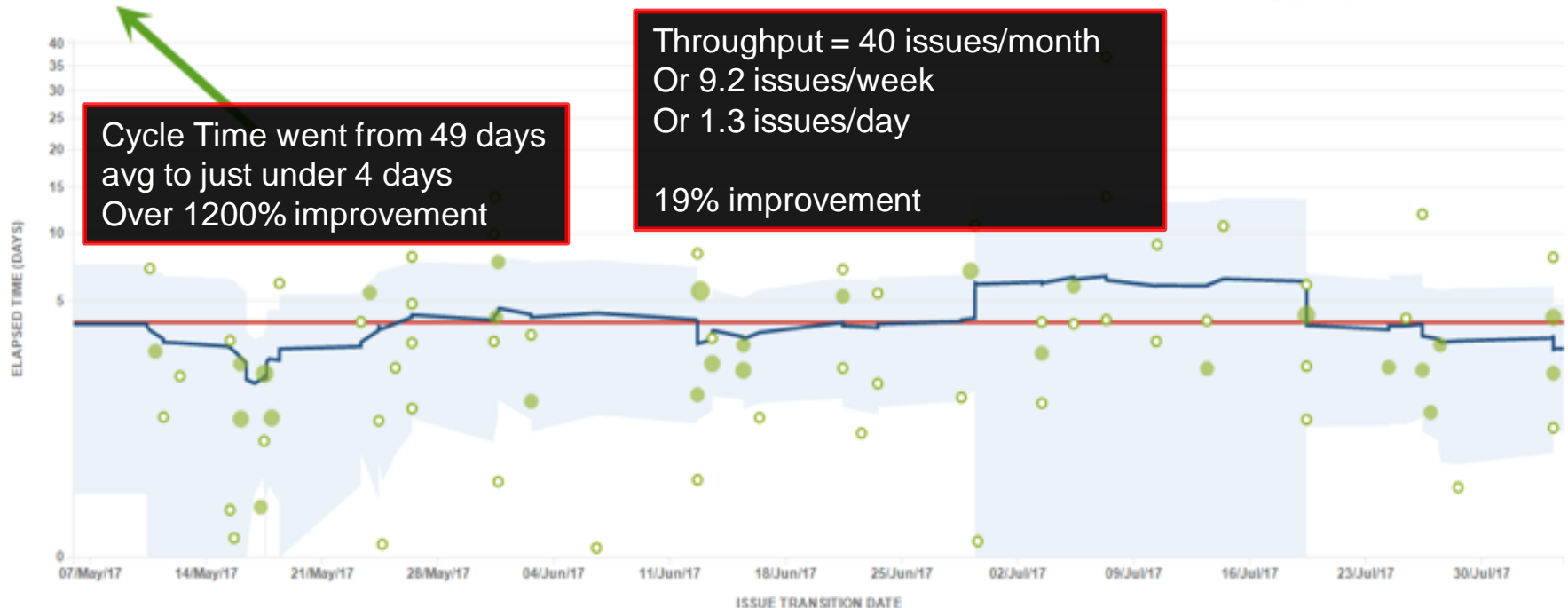


# NEW LEAD TIME / PREDICTABILITY

06/May/17 to 03/Aug/17 (Past 3 Months)

3d 20h average 2d 17h median < 1m min time 5w 1d 22h max time 120 issues

○ Issue  
● Cluster of issues  
— Average  
— Rolling average  
23 issue window  
■ Standard deviation



Cycle Time went from 49 days avg to just under 4 days Over 1200% improvement

Throughput = 40 issues/month  
Or 9.2 issues/week  
Or 1.3 issues/day  
19% improvement

# QUESTIONS



# APPENDIX



# WORKING AGENDA

- ⌄ 0-5 min - introductions
- ⌄ 5-15 min - Definitions to set the stage (lead time, demand, team capability [how to calculate it], commitment point, etc.)
- ⌄ 15-25 min - Background that demonstrates the need for a good discovery process.
- ⌄ \*Work types that do not belong on the team's board, counting toward their lead time (e.g. UX/UI design that is performed by a design team)
- ⌄ \*Overwhelming customer demand
- ⌄ \*Priority switching past commitment point (scrum, kanban, etc.)
- ⌄ 25-30 min - How discovery can help with the issues above
- ⌄ 30-40 - Examples from existing projects showing how lead time was reduced through implementation
- ⌄ \*What worked - Perspective of each role on the team
- ⌄ \*Issues encountered and their resolutions
- ⌄ \*Explicit team norms
- ⌄ \*Metrics
- ⌄ 40-45 - Set up of exercise
- ⌄ 45-65 - Exercise where we will walk attendees through the creation of a good discovery process:
- ⌄ \*Explaining appropriate work types to be included,
- ⌄ \*How to create boards to visualize the difference between discovery work types and committed work
- ⌄ \*Ideas for how to influence team and customers to begin implementation when you return to work
- ⌄ 65-75 - Close out / Q&A