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# REBOOT YOUR TEAM WITH FLOW METRICS

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## About Me

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# What we do

Your unique challenge, our unique solution

## FLEXIBLE ENGAGEMENT



**Strategic Advisory**



**Project Delivery**



**Role-Based Consulting**

## OUR EXPERTISE



**Management Consulting**



**Technology Enablement**



**Data & Analytics**



**Cybersecurity & Compliance**



# Strive Practice Areas



## MANAGEMENT CONSULTING

- Strategy
- Transformation & Coaching
- Product Management
- Delivery Leadership



## TECHNOLOGY ENABLEMENT

- Digital Experience
- Technology Innovation
- Operations & Automation
- Cloud Enablement



## DATA & ANALYTICS

- Data Engineering
- Visualization & Discovery
- Data Science
- Information Governance



## CYBERSECURITY & COMPLIANCE

- IT Cybersecurity
- ICS/OT Cybersecurity
- Regulatory Compliance



# WHY I CHOSE THIS TOPIC



## Survey Time

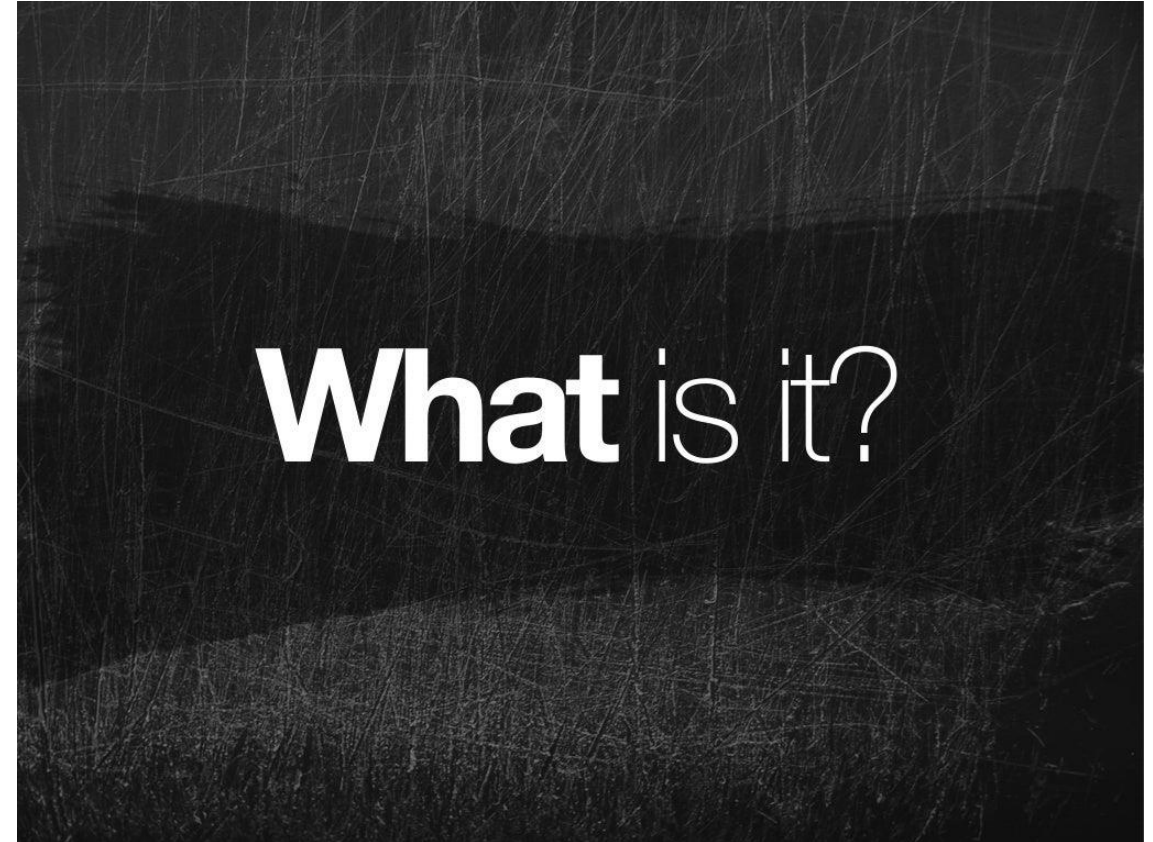
- What framework or process are you using?
- What organizational roles are present?
- What do you measure today?





## What Is Flow?

- Flow is the movement and delivery of customer value through a process
- Customers or TPTB\* usually want some idea of when that value will be delivered



\* The Powers That Be



## Why Should I Care?

- If you have good flow, you can
  - Have a better life because you are likely working on fewer things at one time
  - Provide a forecast for when customer value might be delivered with a level of confidence
  - Have an opportunity to train your leaders to use evidence-based forecasts to make better decisions



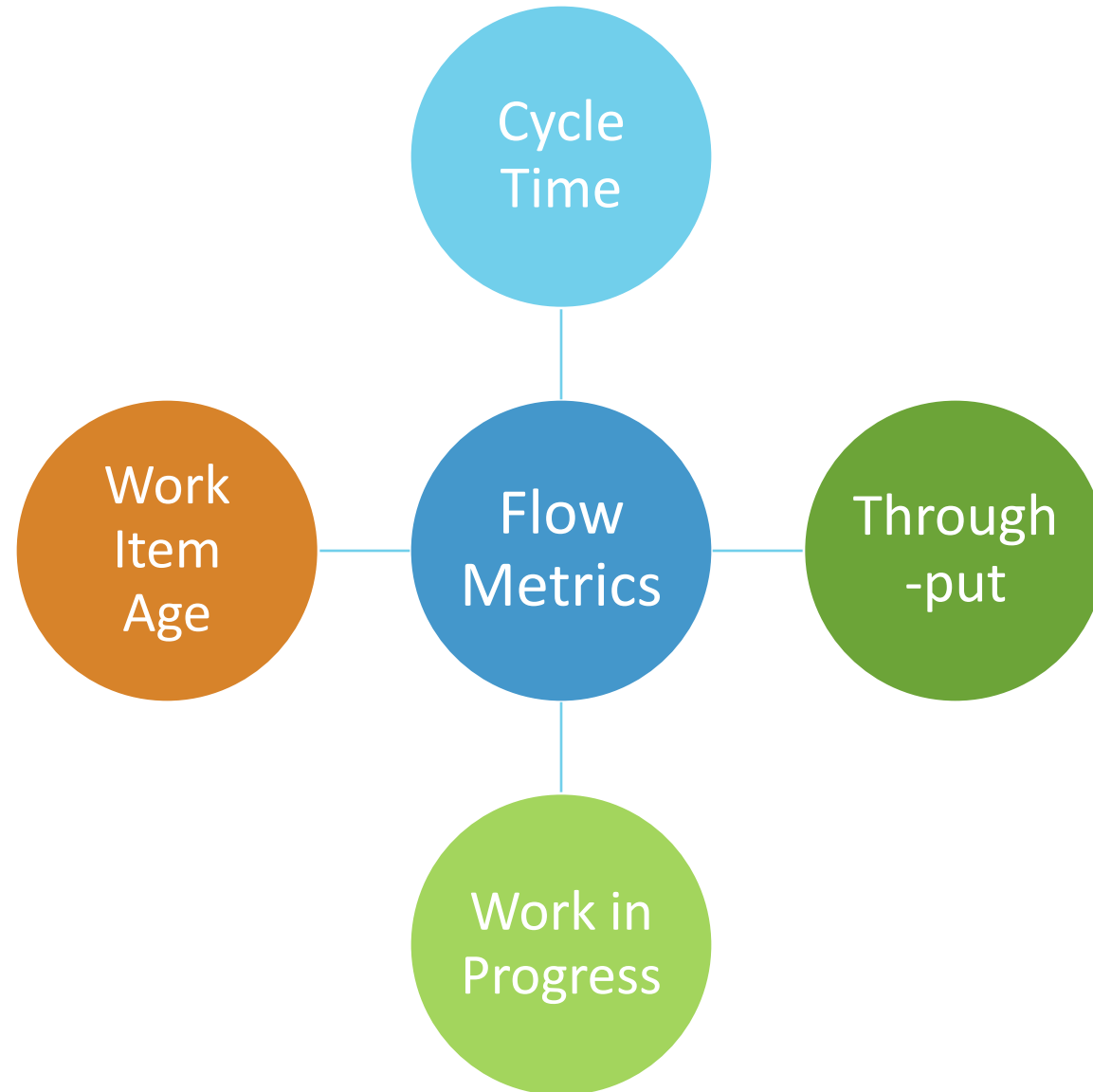


A man in profile, wearing glasses and a light-colored shirt, is holding a tablet. He is standing in a modern office environment with large windows and pendant lights. The scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The word "Flow" is overlaid in the center of the image.

**Flow**

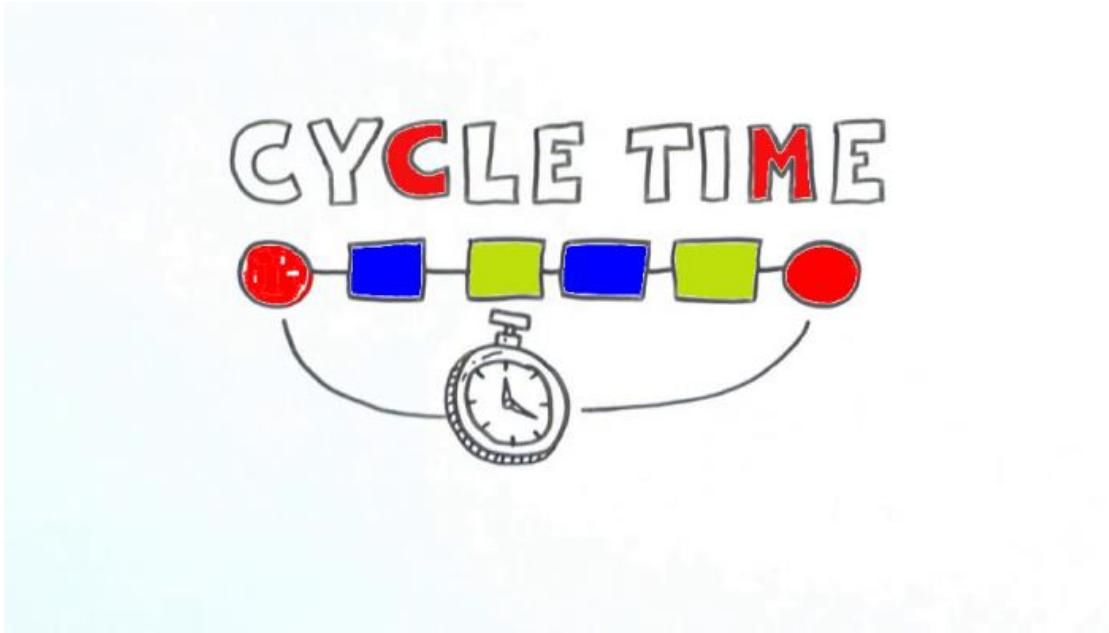


# Flow Metrics





# Cycle Time



Defined as the elapsed time between when a work item starts and when a work item finishes

- Your goal is to keep Cycle Time low
  - Tighten up the feedback loop with your customers
  - Validate your assumptions as quickly as possible
- In aggregate, allows for forecasting when a single item will be done



# Throughput



Defined as the number of work items finished per unit of time

- Your goal is to increase Throughput
  - Deliver more work items to your customers
  - Validate your assumptions as many times as possible
- In aggregate, allows for forecasting when a multiple items will be done



## Work in Progress

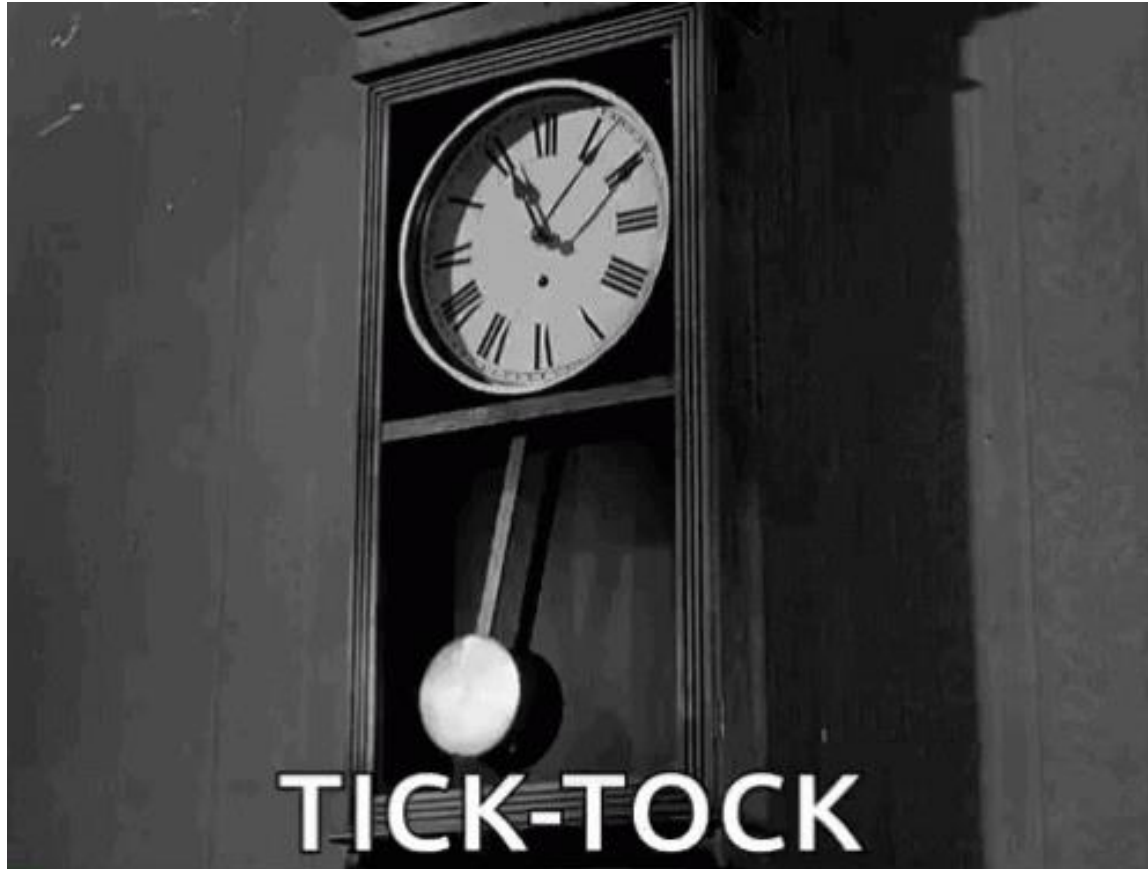


Defined as the number of work items started but not finished

- Your goal is to keep WIP low enough to enable the team to **focus** on getting work items to Done
- Best indicator of process performance, and it's in your control
- Directly influences Cycle Time and Throughput
  - On average lower WIP leads to lower Cycle Time and higher Throughput



## Work Item Age

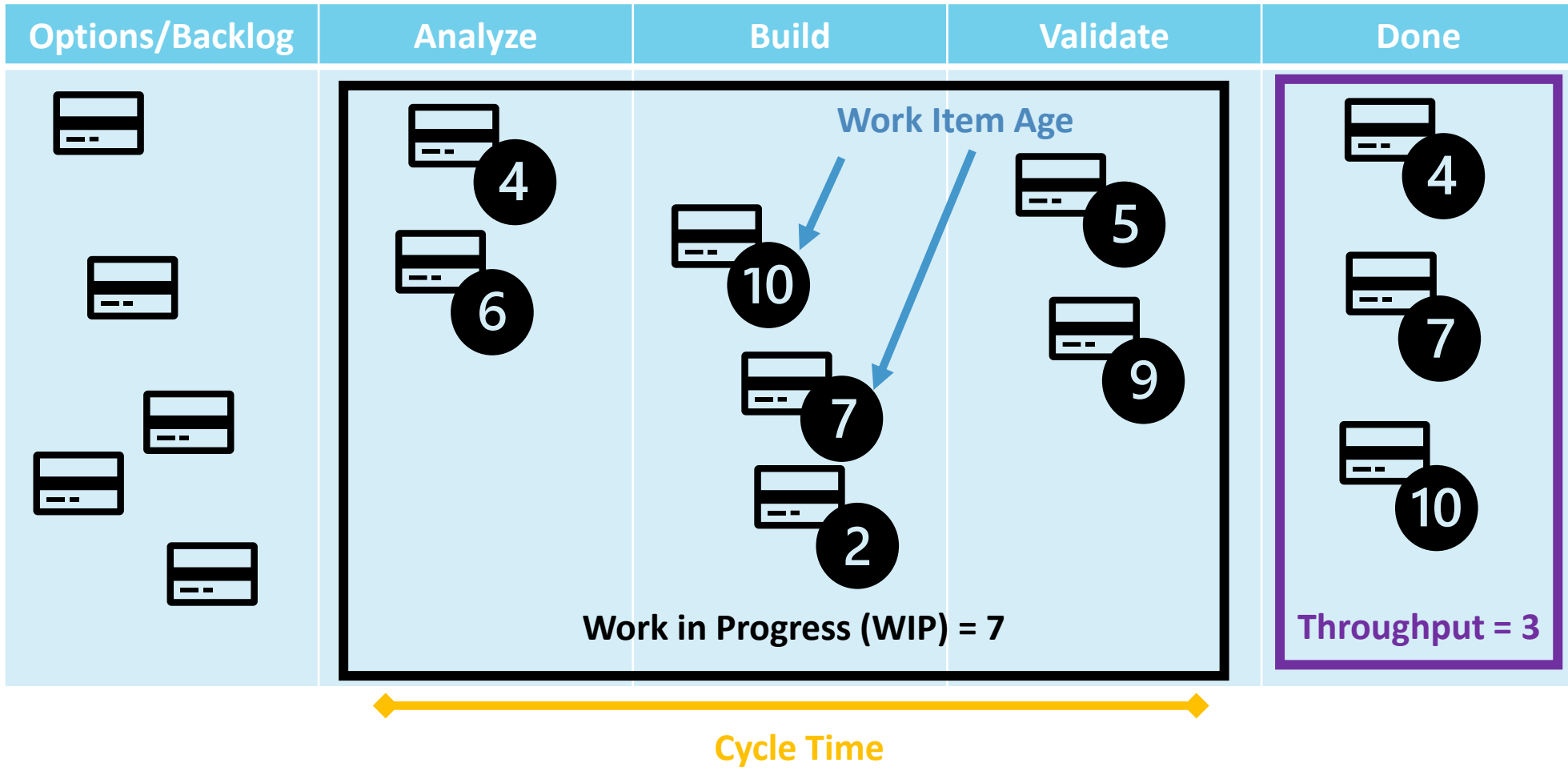


Defined as the amount of elapsed time between when a work item started and the current time

- Your goal is to be proactive and address work items that aren't progressing
- The leading indicator for the Cycle Time of a work item
- What can you do to influence Work Item Age?
  - Finish it
  - Don't start it



# Visual Representation of Flow Metrics





## Survey Time

- Do visualize your work? How?
- What are you visualizing?





A man in profile, wearing glasses and a light-colored shirt, stands in a modern office. He is holding a tablet computer. The office has large windows with a grid pattern, and the lighting is warm and yellowish. A large pendant light is visible in the foreground on the right.

# The Work



## Getting the Most Out of Flow Metrics

Flow metrics are most useful when viewed through the lens of customer recognizable units of value

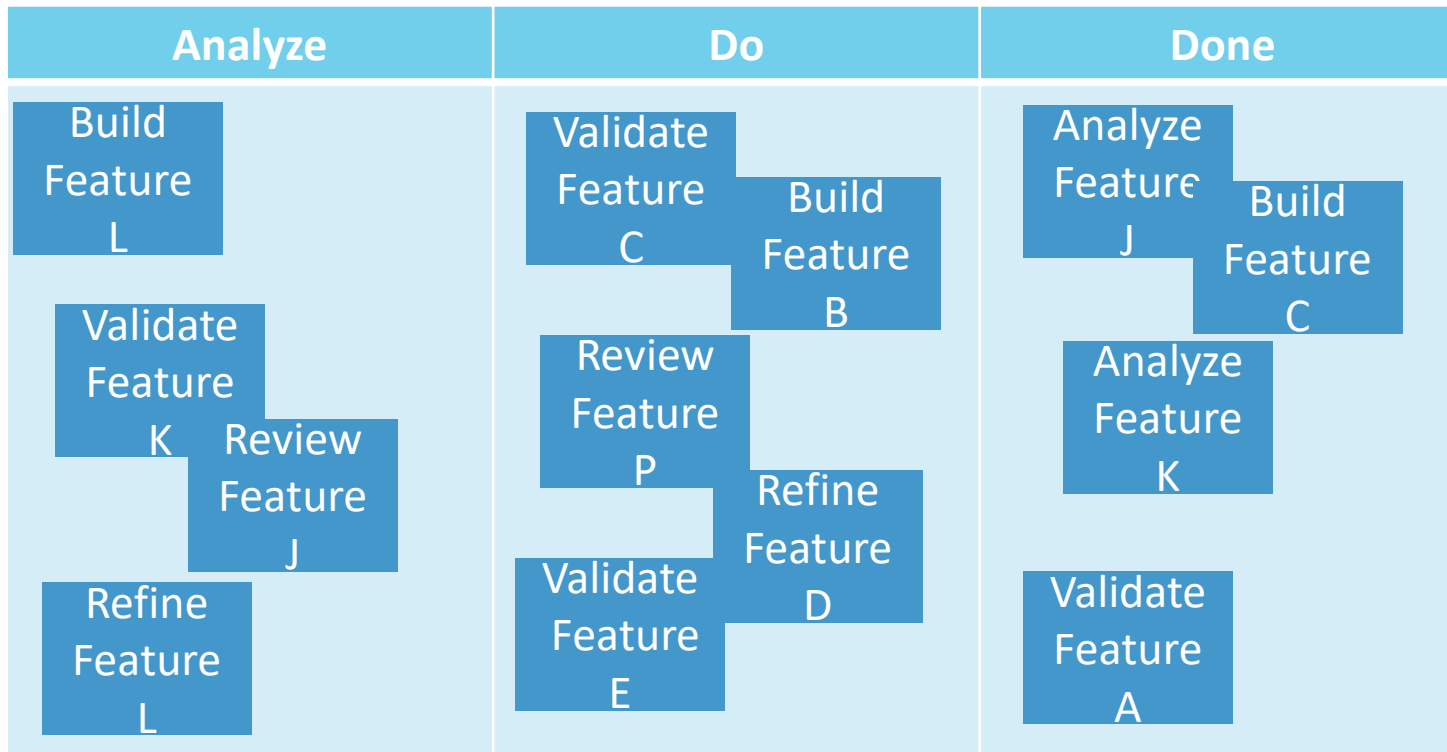
- Measure what your customer wants not your individual tasks
- Beware of steps in your workflow masquerading as work items





# Board 1

## End of the Sprint

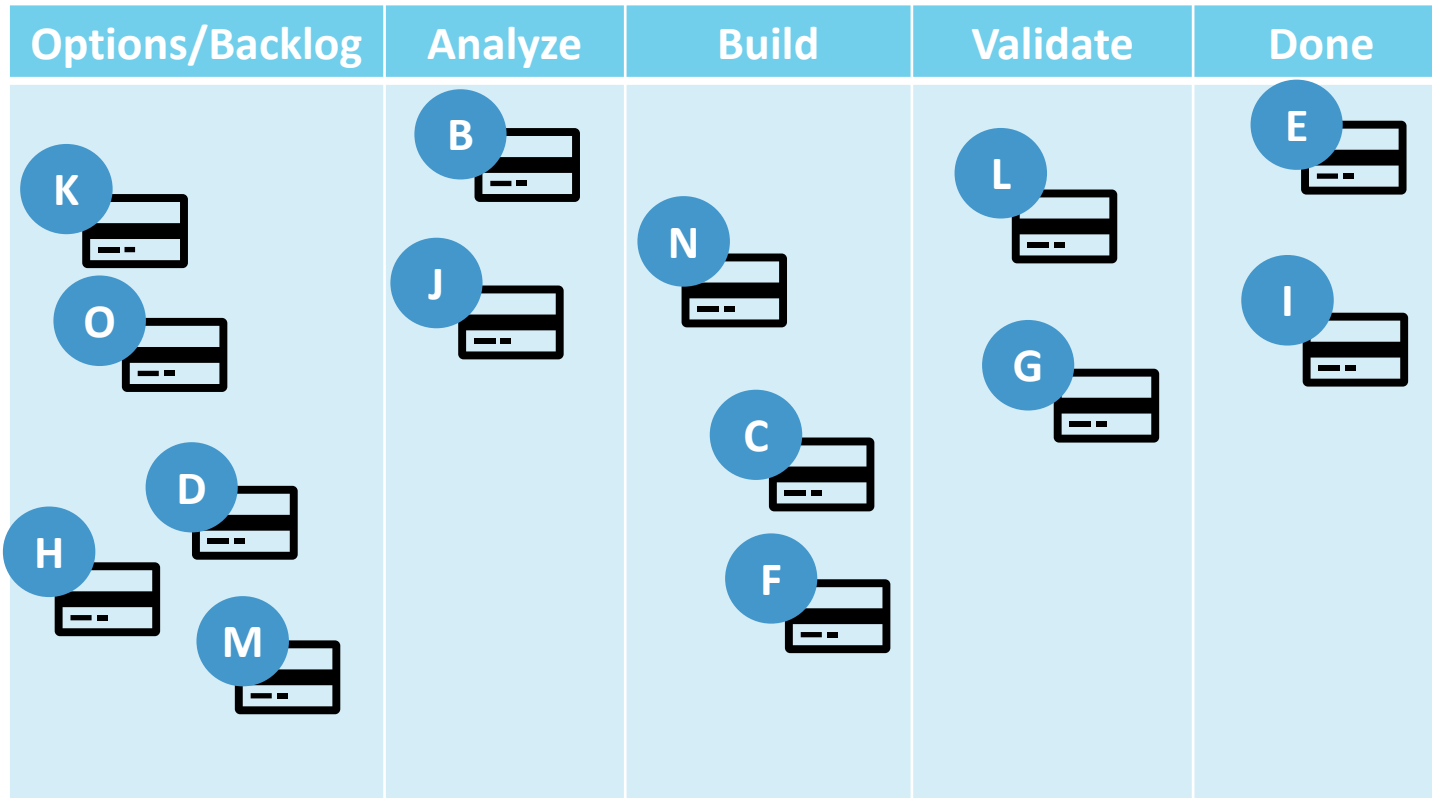


- What stands out on this board?
- How many features is this team working on?
- How many features would a customer think this team get done?

This board represents a task list. Each card represents a small part of what it takes to deliver something a customer might recognize. The tasks themselves do not deliver customer recognizable value. The structure of the board and features makes it difficult to track  $\frac{3}{4}$  of the flow metrics effectively.



## Board 2



- What stands out on this board?
- How many features is this team working on?
- How many features did this team get done?

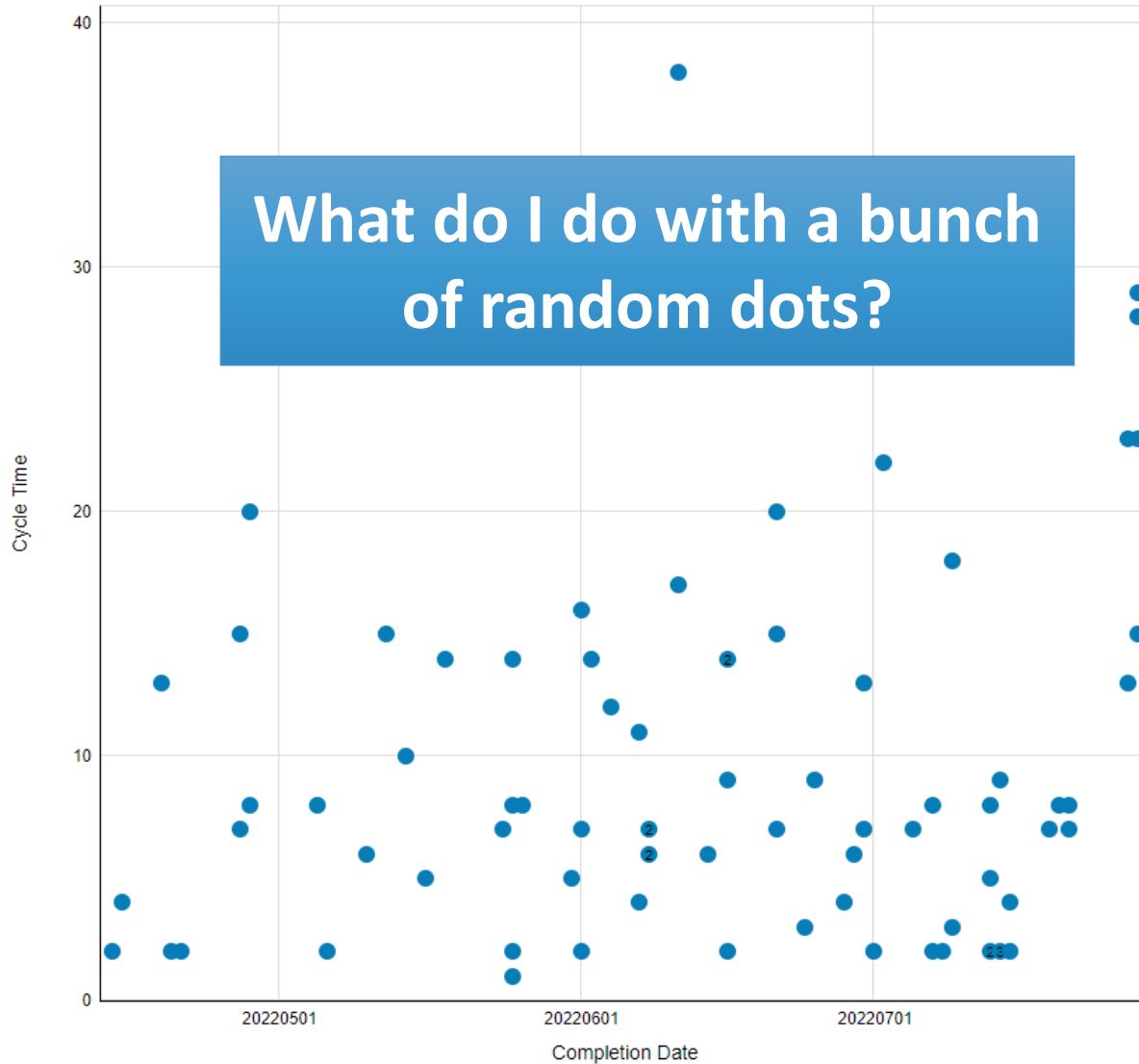
This board represents a workflow. Each card is a customer recognizable unit of work that potentially delivers value on its own. This structure of the board and features makes it easy to track flow metrics.

A man in a white shirt and glasses is shown in profile, looking at a tablet device. He is standing in a modern office environment with large windows and pendant lights. The scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The text "How to Analyze" is overlaid in the center of the image.

# How to Analyze



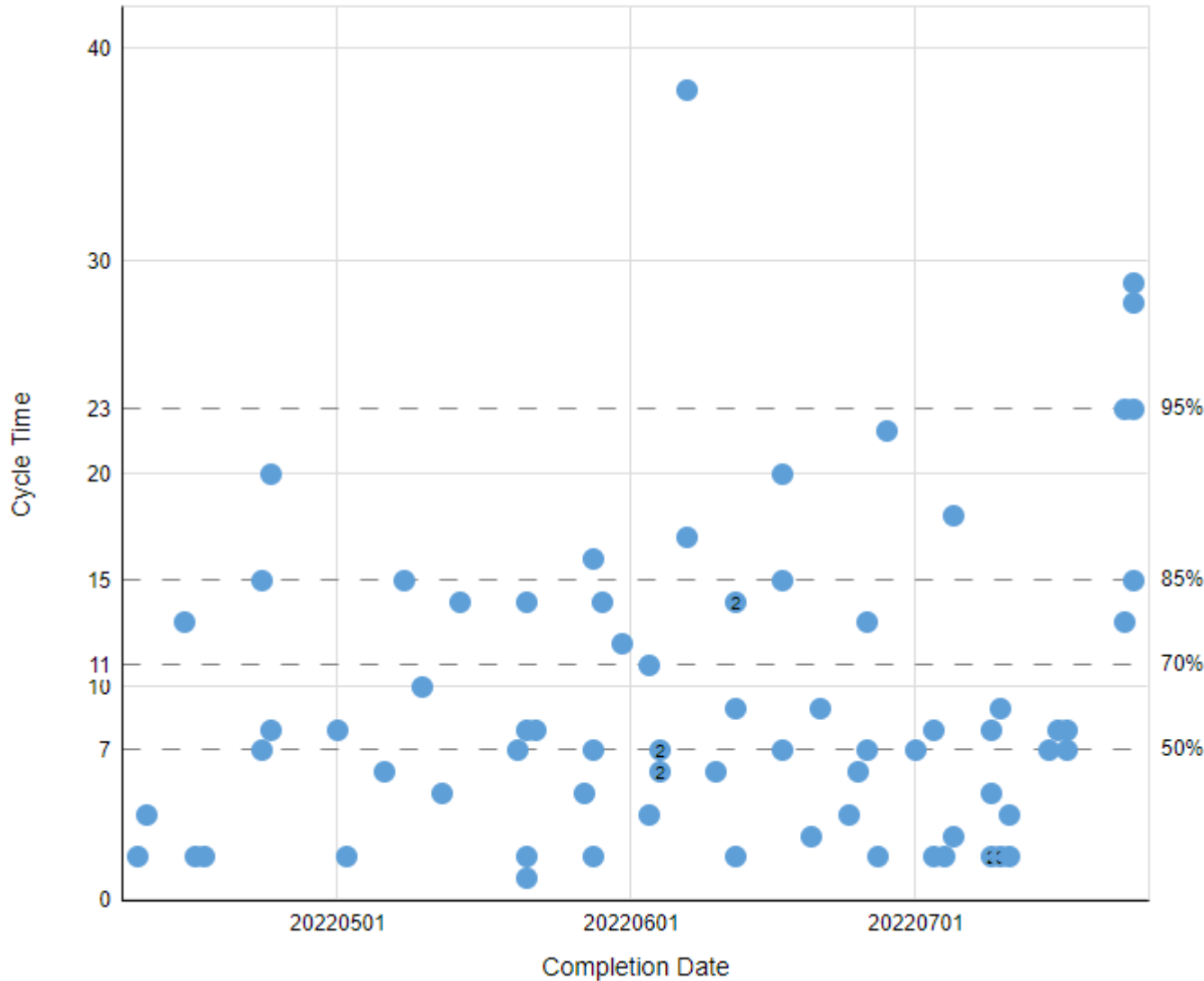
# Analyzing Your Cycle Time Data Using a Scatterplot



- You need to analyze your data in aggregate over time
- Plot the cycle times of all your work items in a scatterplot
- Count all the dots and multiply by a percentage
- Draw the line such that the percentage of the dots chart fall below that line



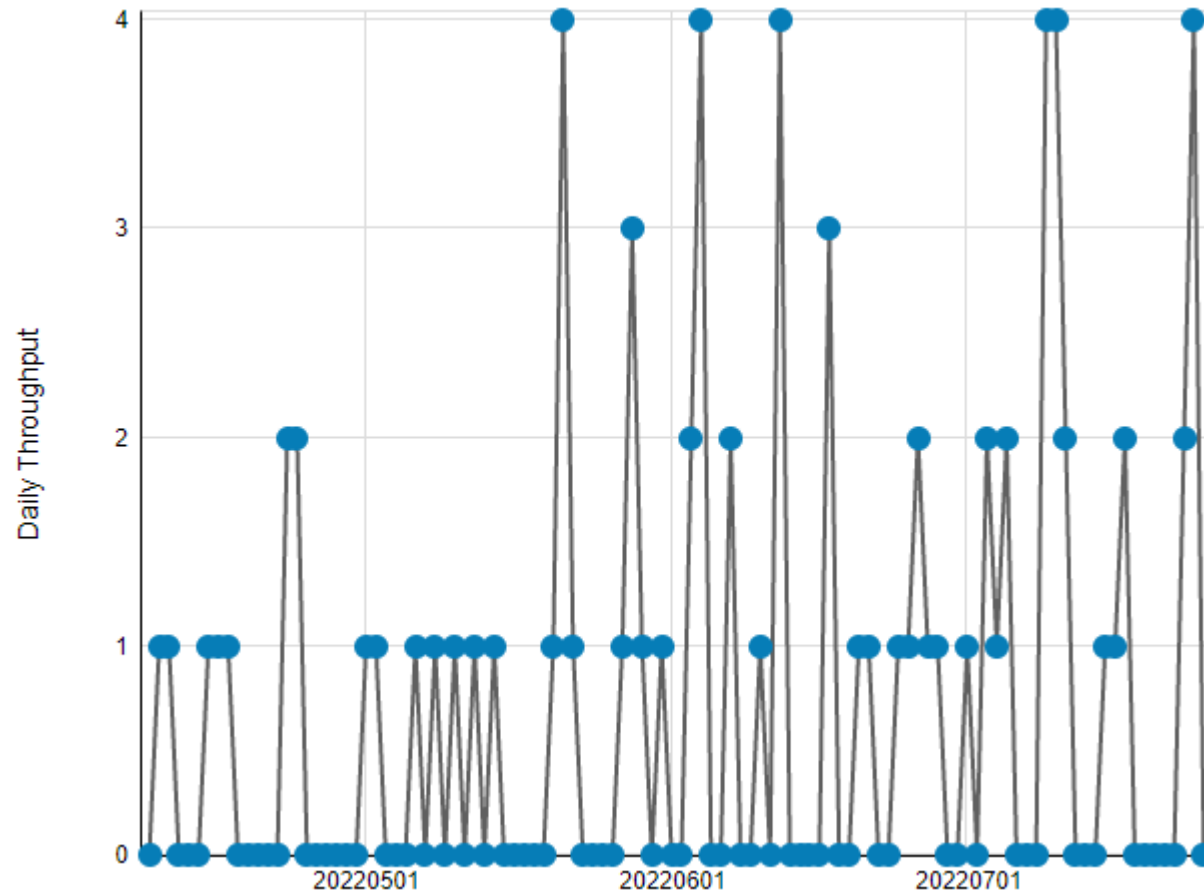
# Cycle Time Scatterplot



- Percentile lines provide a forecast for when a single work item will be done with a level of confidence
  - This called a Service Level Expectation (SLE)
- Use SLEs speed up estimation conversations



## Analyzing Your Throughput Data Using a Line Chart

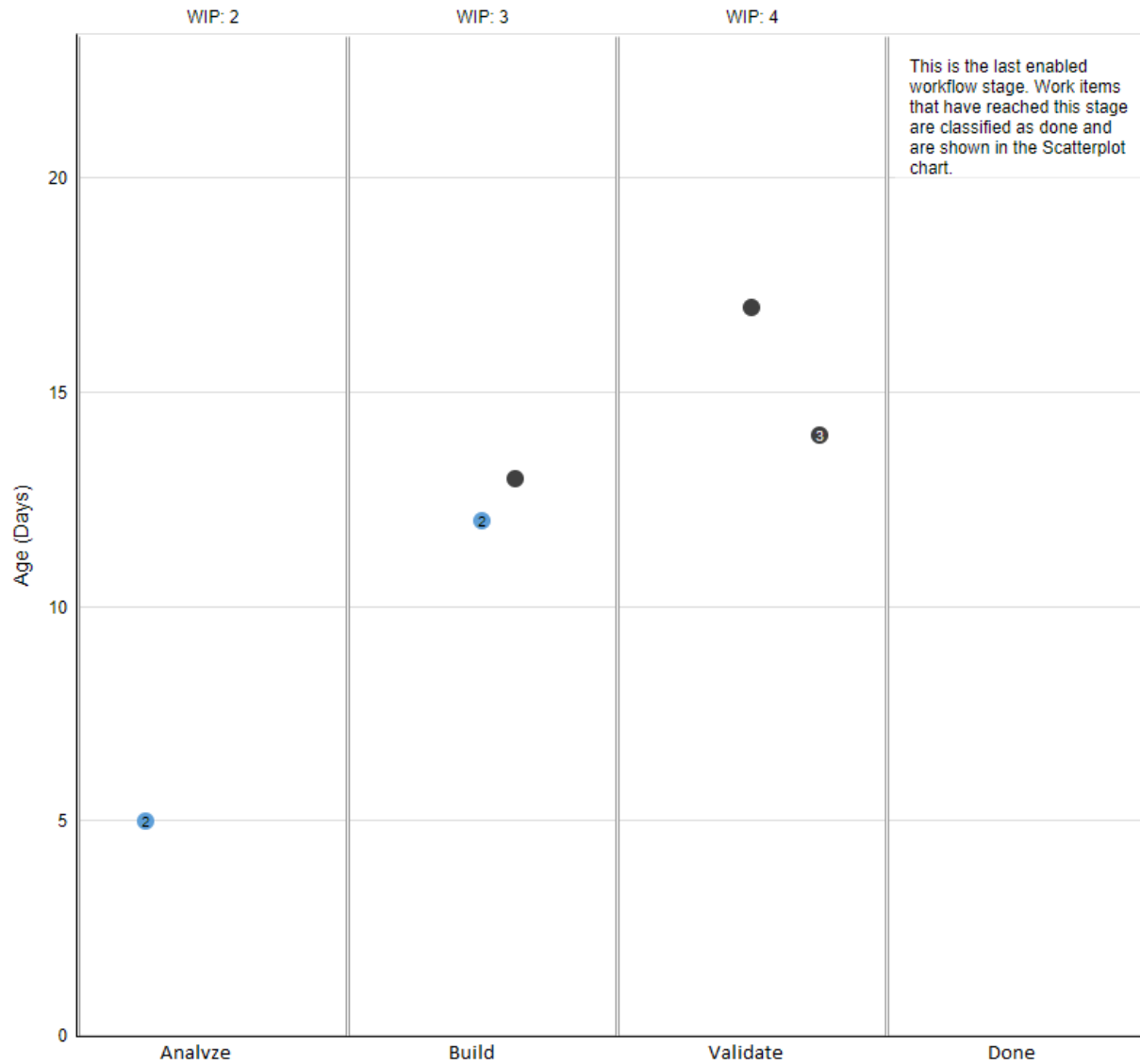


- When you first start, use short term historical throughput to plan how much work to do
- Once you have a stable process, you use Monte Carlo simulations to forecast when multiple items will be done





# Analyzing Your Work Item Age Data Using an Aging Chart



- Read from right to left
- Focus on
  - Work that is stalled and not moving
  - Getting work to Done

A man in a white shirt and glasses is shown in profile, looking at a tablet device. He is standing in a modern office environment with large windows and pendant lights. The scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The overall atmosphere is professional and focused.

# Impact to Team Events



# Impacts to Team Events: Planning

## Planning

- Key Metric: Throughput
- Use Throughput to guide how much to do using recent historical data





# Impacts to Team Events: Synchronization

## Synchronization

- Key Metrics: Work Item Age and Work in Progress
- Be proactive about addressing stalled work items





## Impacts to Team Events: Review

### Review

- Key Metrics: Throughput and Cycle Time
- Talk about the current state of the Service Level Expectation





## Impacts to Team Events: Retrospective

### Retrospective

- Key Metrics: Cycle Time, Throughput, Working in Progress, and Work Item Age
- Identify ways to improve the flow metrics and Service Level Expectation



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# Getting Started



## How to Start

1. Track Work Item Age
2. Determine if you need to restructure the way you visualize your work
3. Determine if you want track historical Cycle Time and Throughput to get a baseline or start where you are
4. Begin analyzing your data
  - Use the free [Throughput and Cycle Time Calculator \(5000 samples\)](#) from Focused Objective
  - [ActionableAgile Metrics](#) standalone tool or Jira/Azue DevOps plugin
5. Call Strive Consulting to hire Tiffany if you get stuck







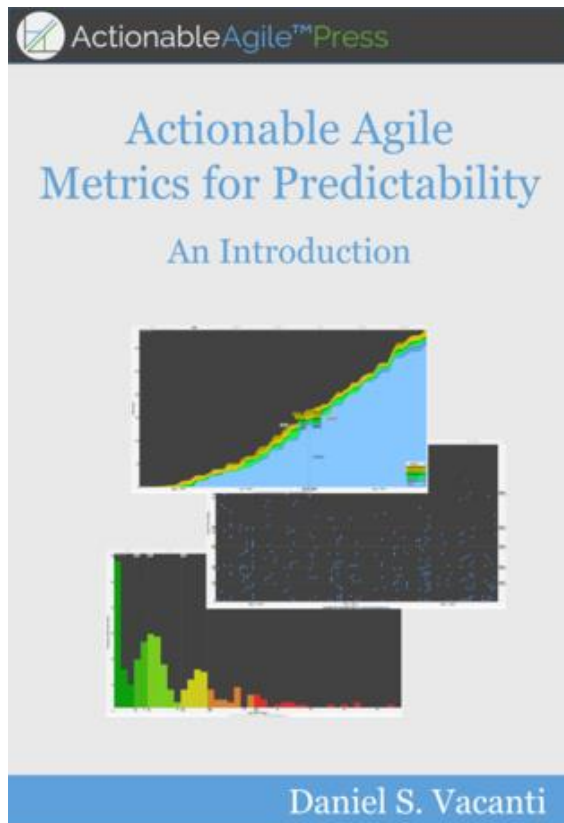
# Q & A



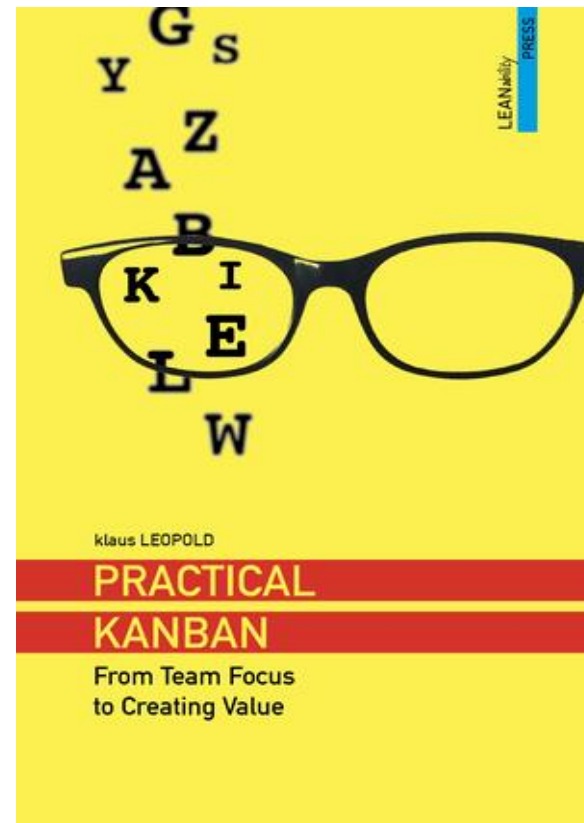


## Additional Resources

- [The WIP Game](#) and [Monthly Q&A](#) – 55degrees
- [ProKanban Slack Channel](#)



[Link](#)



[Link](#)



## Basic Metrics of Flow in One Place

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Work in Progress (WIP) – number of work items started but not finished

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Work Item Age – amount of elapsed time between when a work item started and the current time

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Cycle Time – amount of elapsed time between when a work item starts and when a work item finishes

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Throughput – number of work items finished per unit of time

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The Cycle Time, Throughput, and Work Item Age metrics require the team track the start date and finished date of each work item