



**Kanban**  
University



## TEAM KANBAN PRACTITIONER

Applying essential Kanban principles and practices in teams.

Student Copy



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## Team Kanban Practitioner

Applying essential Kanban principles and practices in a team.

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## Module 01

# Introduction to the Class

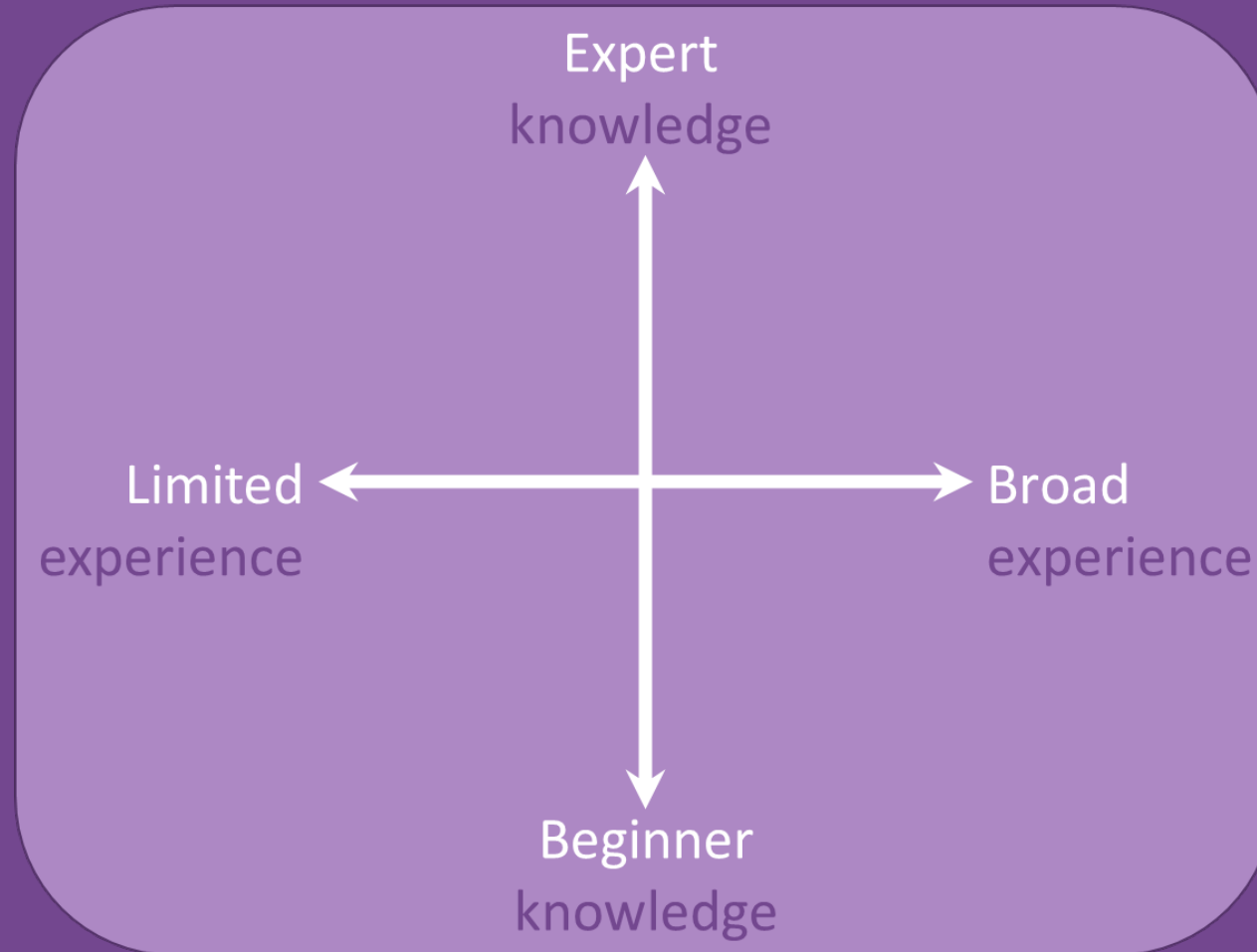
Getting started, meeting the class and introducing the topic of Kanban

# What do you already know about Kanban?

- Take one minute and make a few notes. Not more than 3 items.
- When signaled by the trainer, put your items on the board.



# Getting to know you



# Structure of the class

1 Introduction  
of the class  
and Kanban

2 Experience  
Kanban  
Practices

3 Applying  
Kanban in a  
Team

4 The Kanban  
Method

5 What's  
beyond &  
Closure

What is your purpose for attending this class?  
What do you hope to take away?

- Write your top 3 reasons for attending Team Kanban Practitioner in your workbook.
- Put them in short words in the “Fitness for Purpose” area on the board.



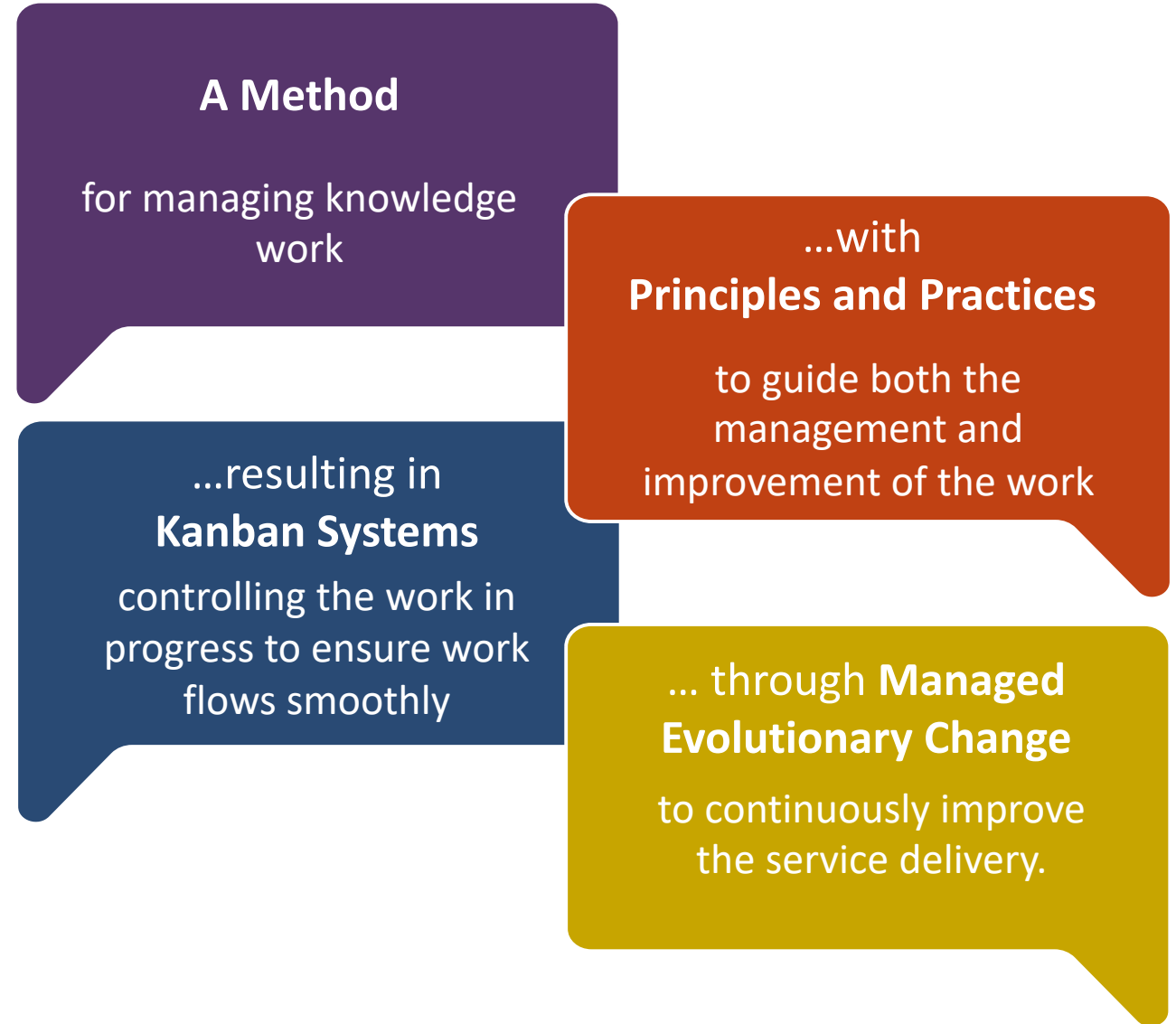
# What is Kanban?

- Let's review your input on the board.
- What do you observe? Any surprises? Anything you don't agree with?



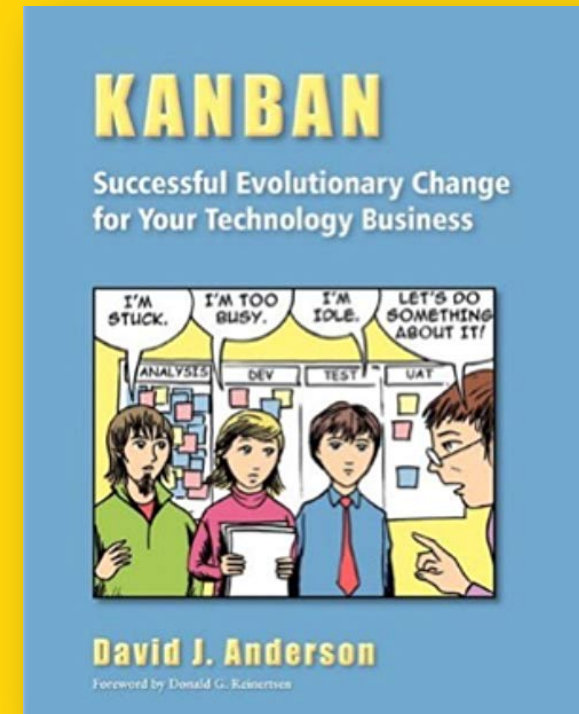
# What is Kanban?

For now, remember:



# Origins of the Kanban Method

- Basic values shared with Lean.
- Kanban was pioneered by David J Anderson in 2004/05 at Microsoft.
- Kanban has been adopted to knowledge work.
- Kanban is used today in many services industries.



# Change Management Principles

1

Start where you are!

2

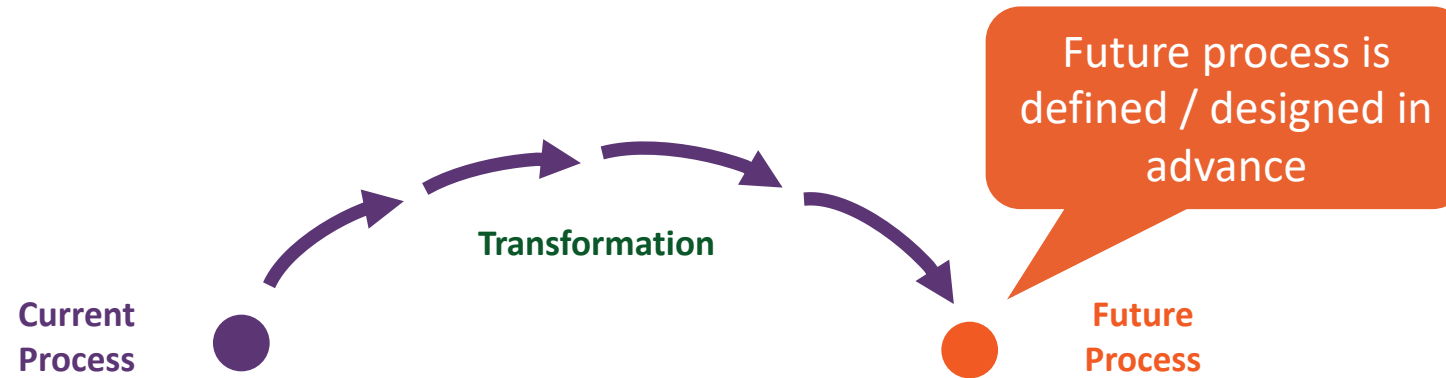
Agree to pursue evolutionary change.

3

Acts of leadership at all levels.

With Kanban, we start by developing and visualizing a joint understanding of the current way of working. Then, improvements are identified and implemented.

# Traditional change is an A to B process



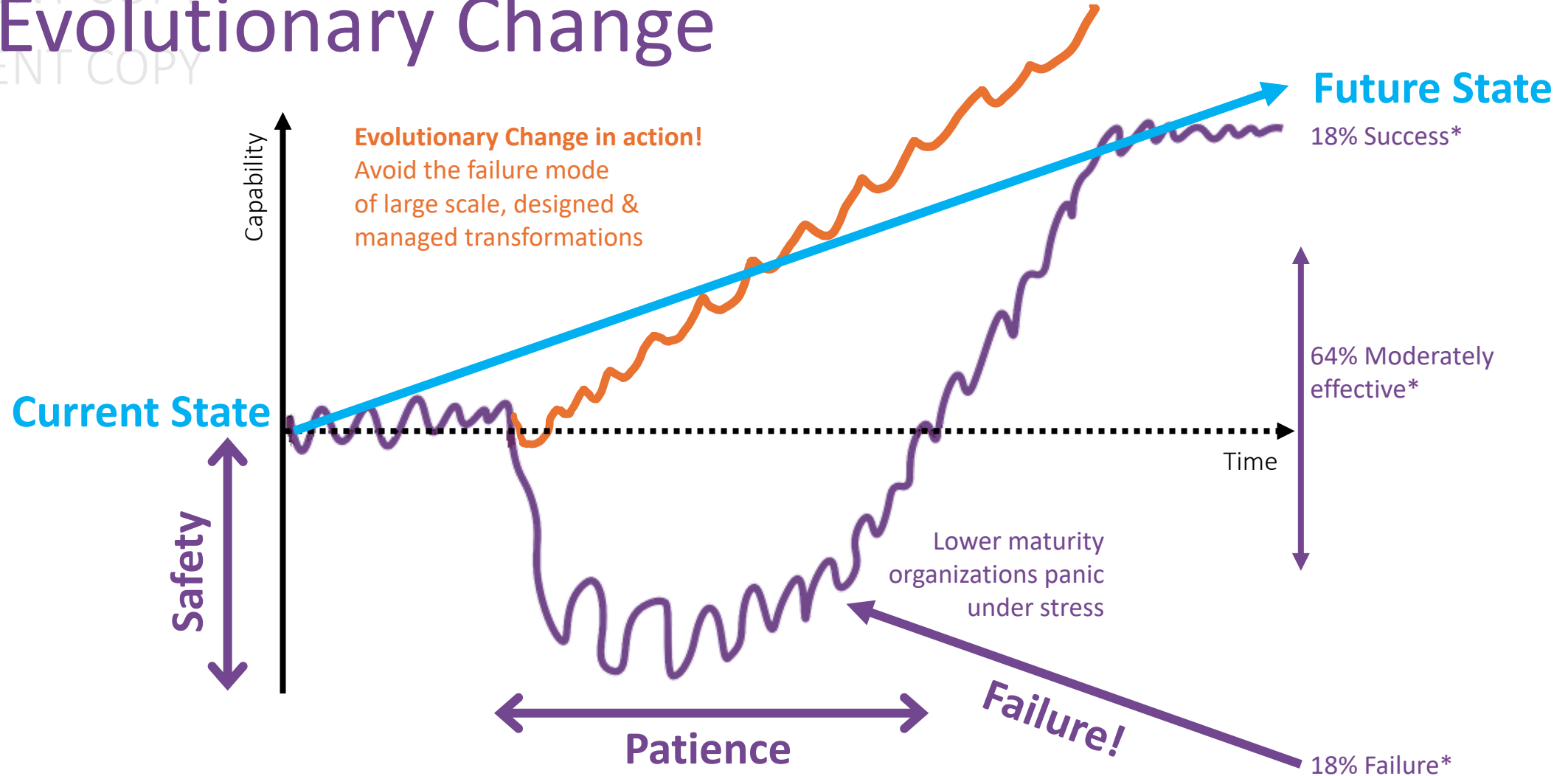




# Evolutionary Change, not Revolutionary



# Evolutionary Change



\* <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/organizational-change-management.pdf>



“

Be like water

Bruce Lee

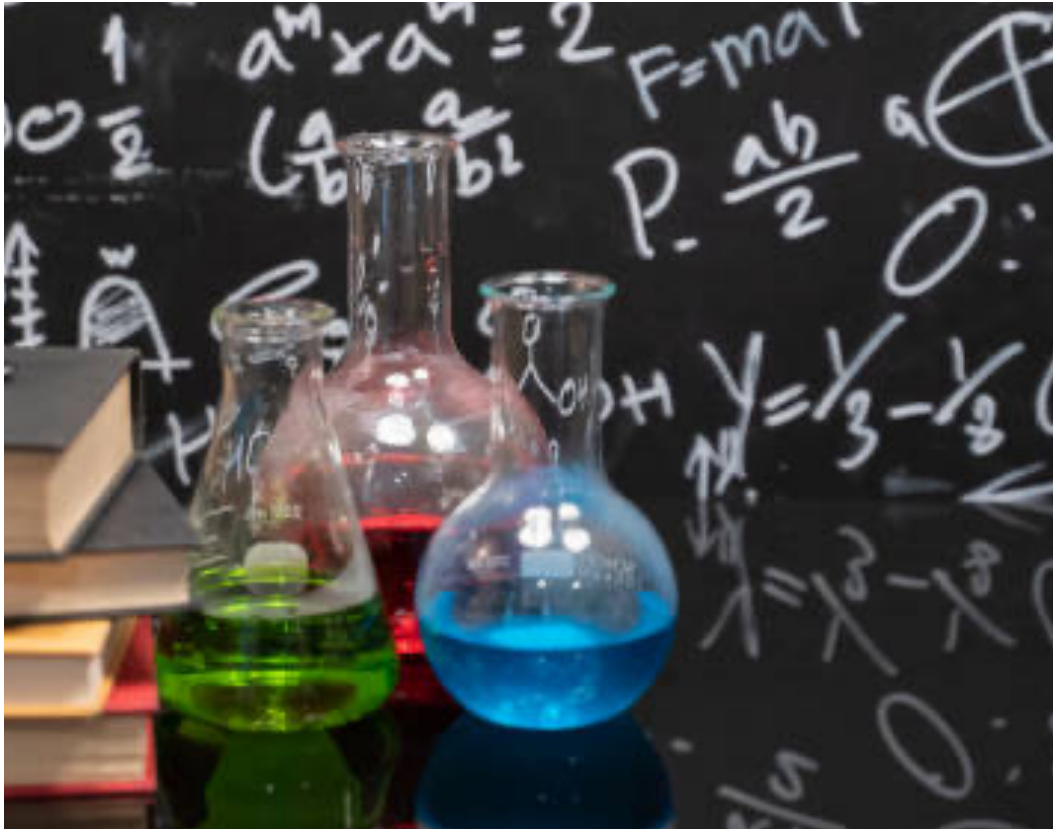
# Find your rock

- Do you see any rocks, or immobile objects in your organization?





# Don't leave it to chance: **Managed Evolutionary Change**



- Enables a controlled improvement process which starts at the current state.
- Increases the speed and purposefulness of changes.

Only mutate that which isn't working well. Preserve that which is.

## Module 02

# Kanban Practices

Experience the Kanban Practices in a simulation

# Let's do a simulation

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# Kanban Practices

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# Your visual organizer

- See page 5 of your workbook with the 2\*3 grid.
- Throughout this module, fill the squares with your visuals and words in order to embed them in your memory.



# Kanban Practice

We want to make work and its flow visible so that it is not hidden. We also want to make information about the work, its risks or the process visible through such elements as charts.

## Visualize



# Kanban Practice

A policy that constrains the amount of work allowed in a given part of the Kanban System. Limits prevent starting new work when downstream capacity is already utilized and unable to complete the work.

**Limit WIP**



# Kanban Practice

The point of a workflow is to result in delivery. We focus on managing the flow of the work in order to get smooth, predictable, and potentially faster delivery.

## Manage flow





# Kanban Practice

An explicit description of various policies that shape how the service delivery works.

**Make policies  
explicit**



# Kanban Practice

A feedback loop starts with feedback information about the existing service delivery and then requires action based on whether the result is in line with the desired goals or must be altered in order to improve or align with those goals. Feedback without action is not a feedback loop.

## Establish Feedback loops



# Kanban Practice

An intentional design to determine if a hypothesis is valid or not. The experiment is accepted by the whole team.

Improve  
collaboratively,  
evolve  
experimentally



# Kanban Method: General Practices



Visualize



Limit WIP



Manage flow



Make policies  
explicit



Establish  
feedback  
loops



Improve  
collaboratively,  
evolve experimentally

# Module 2 reflection

- What do you take away from module 2?
- Make notes in your workbook.





## Module 03

# Applying Kanban in a Team

Practical usage of Kanban practices and principles

# Warm-Up

- Form groups of 3-4 people.
- List all the Kanban practices that you can remember
- Tip: There are six of them.



# Kanban Method: General Practices



Visualize



Limit WIP



Manage flow



Make policies  
explicit



Establish  
feedback  
loops



Improve  
collaboratively,  
evolve experimentally

# Prepare Teach-Back for Practices

## Summarizing the 6 General Practices

- Prepare a brief teach-back of 2 minutes per practice:
  - Summarize the practice.
  - Explain why is it important.
  - Use experiences from the simulation.
- You will present as a group later.

# Teach-Back: Visualize

Present the summary and motivation for the Kanban practice “Visualize”.



# Teach-Back: Limit WIP

Present the summary and motivation for the Kanban practice “Limit WIP”.





# Data Hunt: Have a look at the boards provided and gather information and patterns.

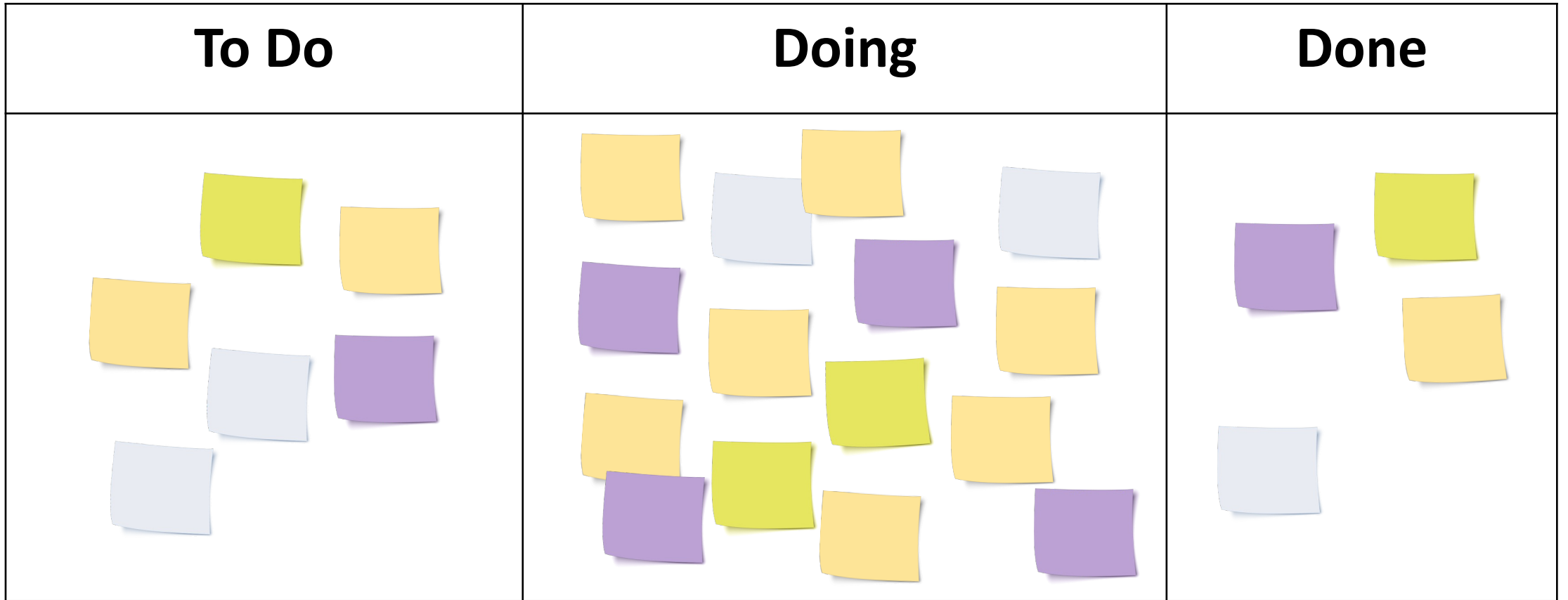
- What design elements can you find in boards, and how are they typically used?
- Find as many options how to Visualize Limit WIP as you can. When might those be appropriate?

# Wrap-Up: Data Hunt

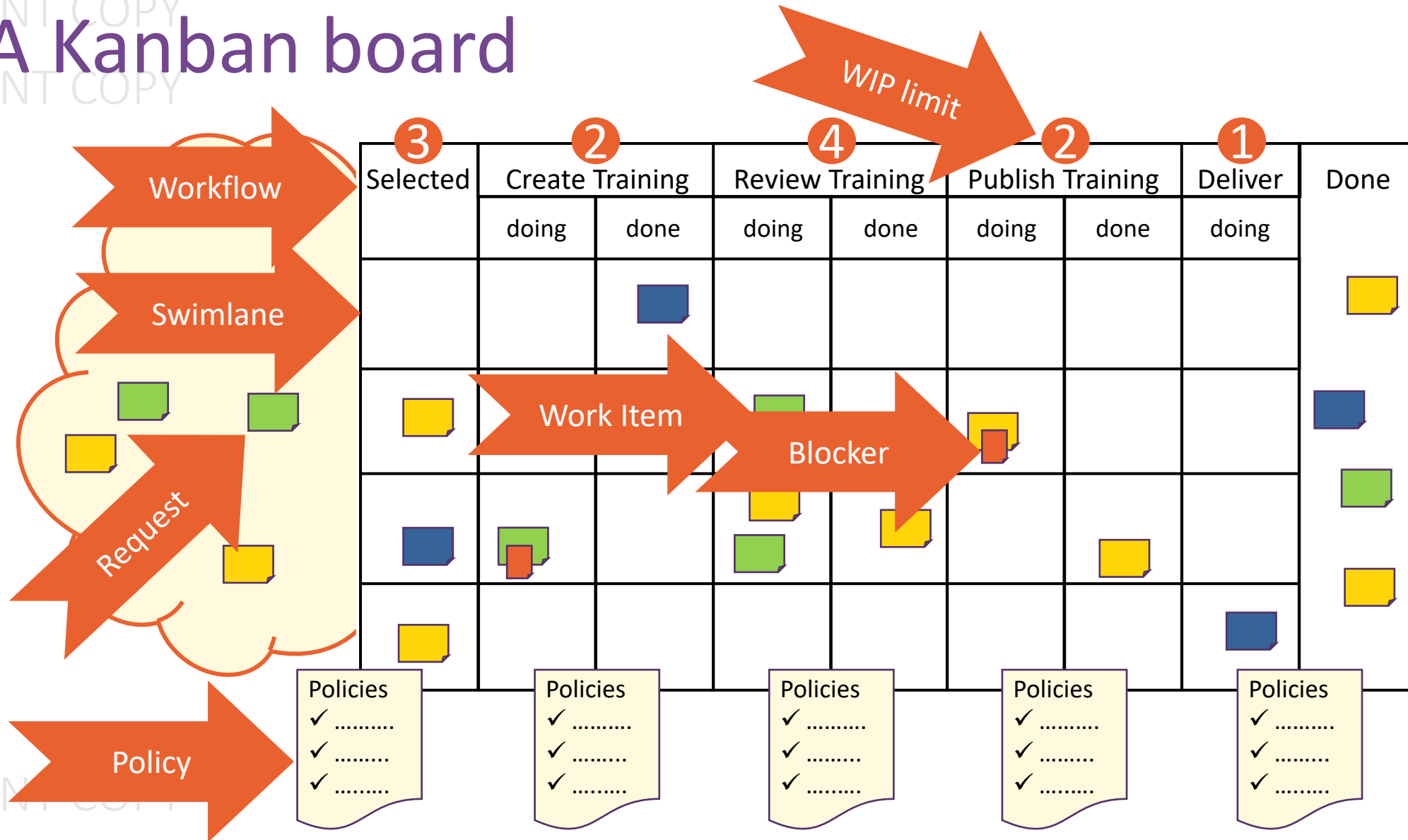
- What visual design elements did you find?
- How many options how to Limit WIP did you find?
- Share your insights and observations with the group.
- Don't forget to write your learnings in the workbook.



# Visualization

| To Do                                                                               | Doing | Done |
|-------------------------------------------------------------------------------------|-------|------|
|  |       |      |

# A Kanban board



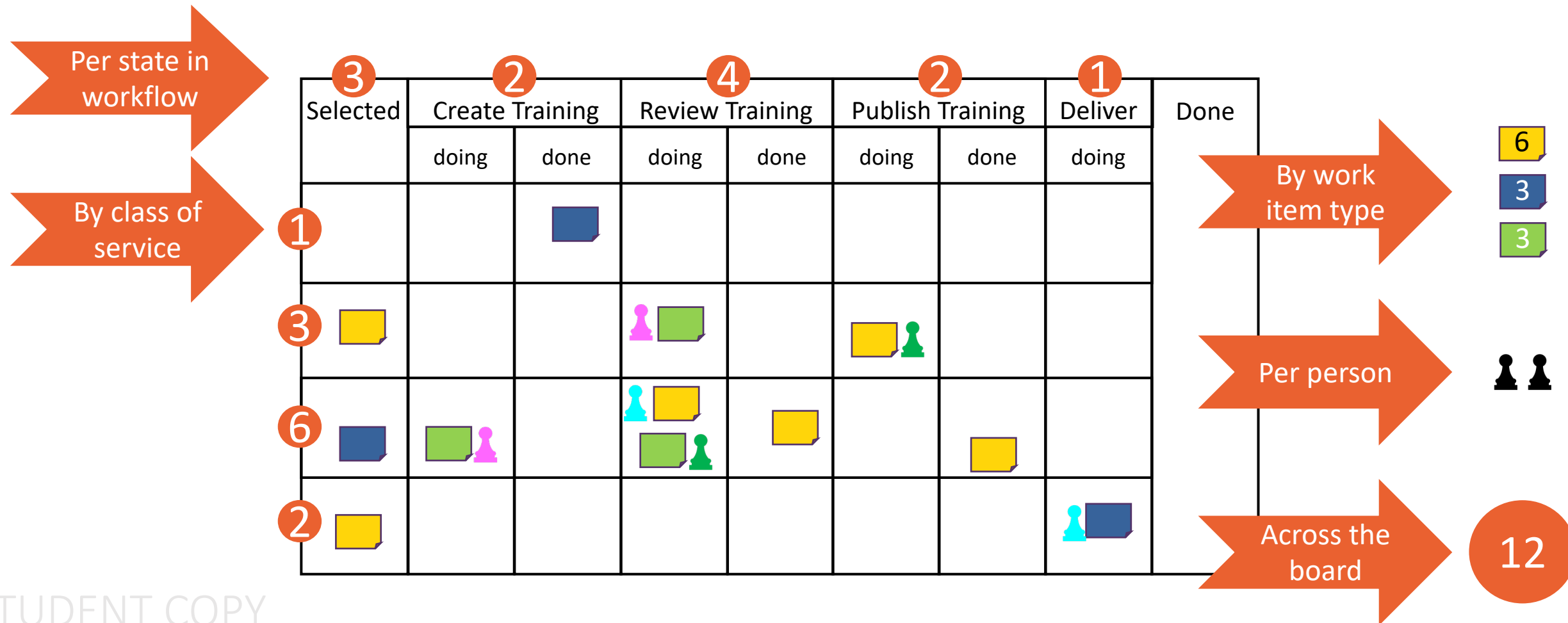
Limiting Work in Progress - how many different statements can you give about this topic in 2 minutes?

# How and where can WIP be limited?

- WIP limits can be determined
  - By the type of work / request
  - Per person
  - Per state in the workflow
  - Class of Service
  - Or across the entire board



# Visual of possible WIP-limits

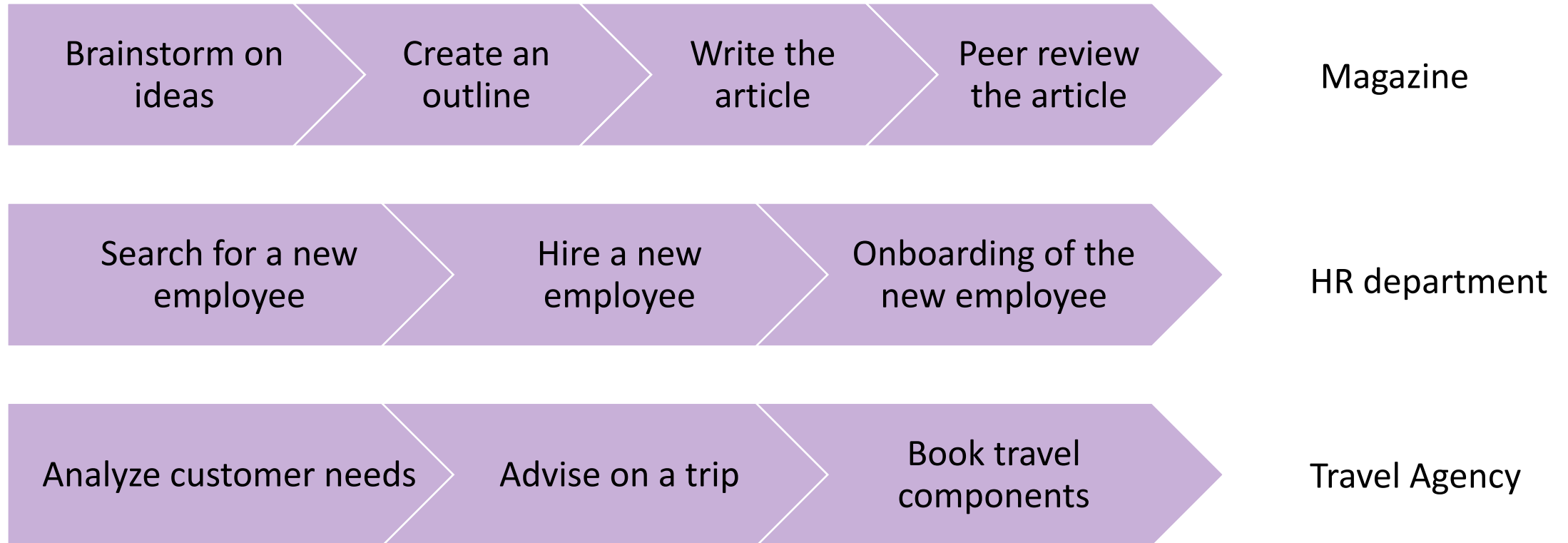


# Teach-Back: Manage Flow

Present the summary and motivation for the Kanban practice “Manage Flow”.



# In Kanban we model workflows



Think about the operation of a coffee shop. How many different types of requests can you identify?

- Popcorn! Shout out as many as you can.



# Work item type

“

We can manage different types of work or requests on one Kanban board.

# Other examples of work item types

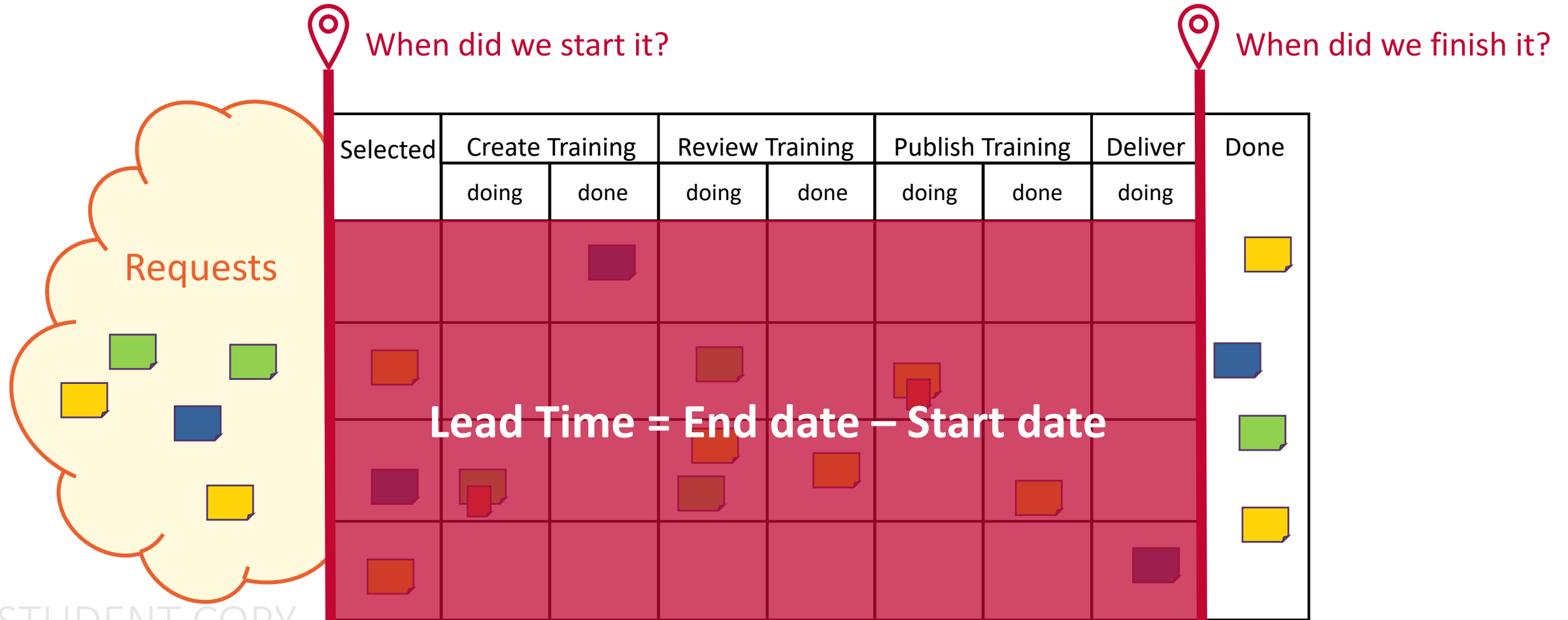
## Marketing Service

- Prototypes
- Design specifications
- Reports
- Trade show demos
- Ad campaigns

## HR Service

- Vacation requests
- Recruiting
- Benefit packages
- Employee training
- Payroll record updates

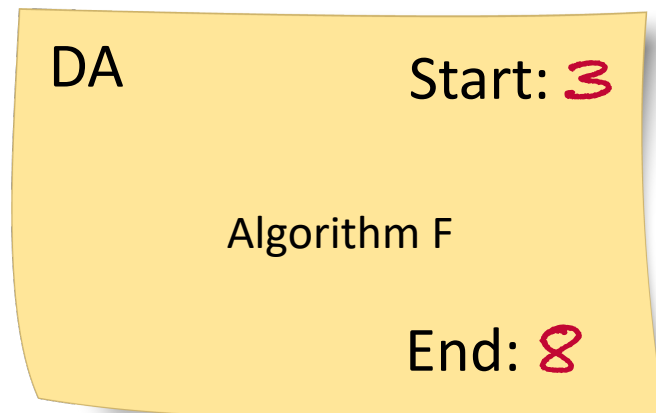
# Kanban Key Metric: Lead Time





# Let's have a look at your service businesses!

What is the lead time of this request?

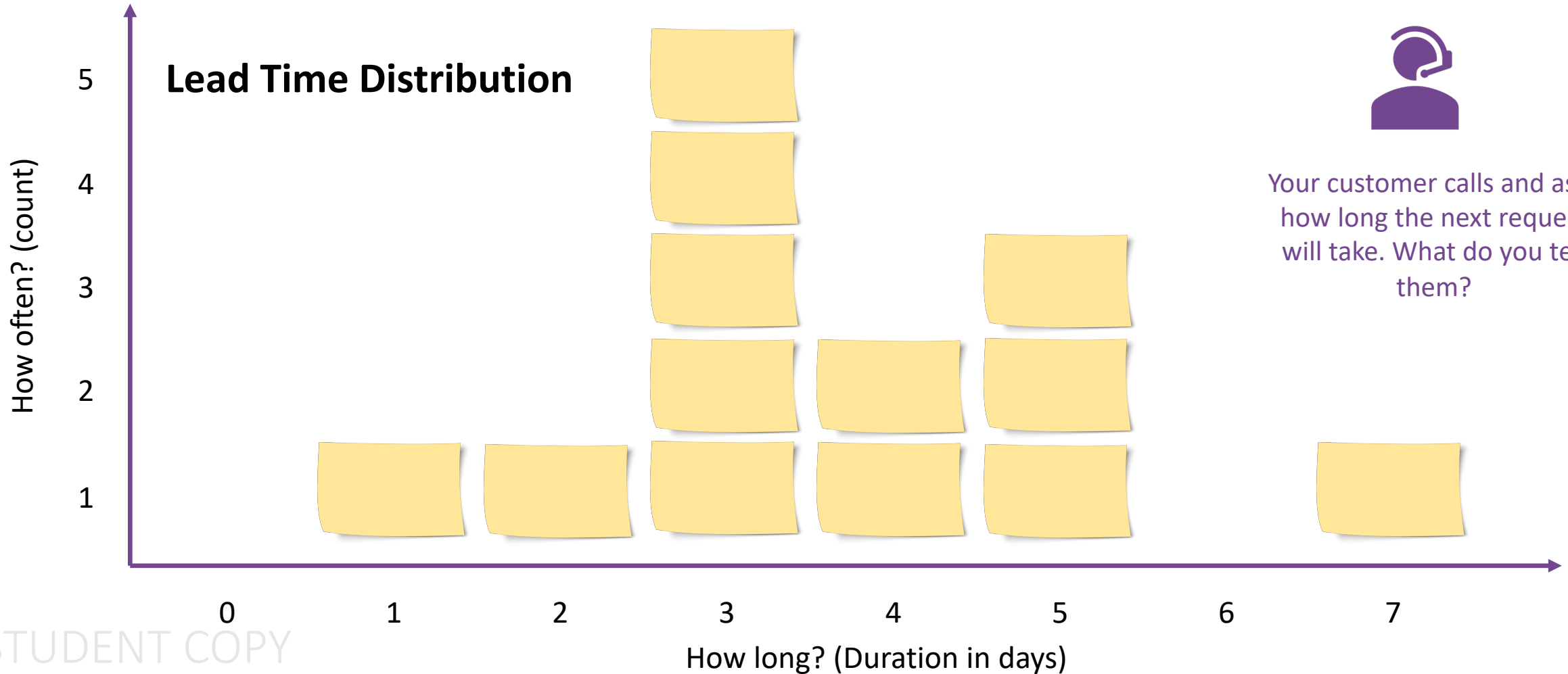


$$= \textit{End date}(8) - \textit{Start date}(3)$$

$$= 5 \textit{ Days}$$

# How are you doing overall?

**Lead Time Distribution**



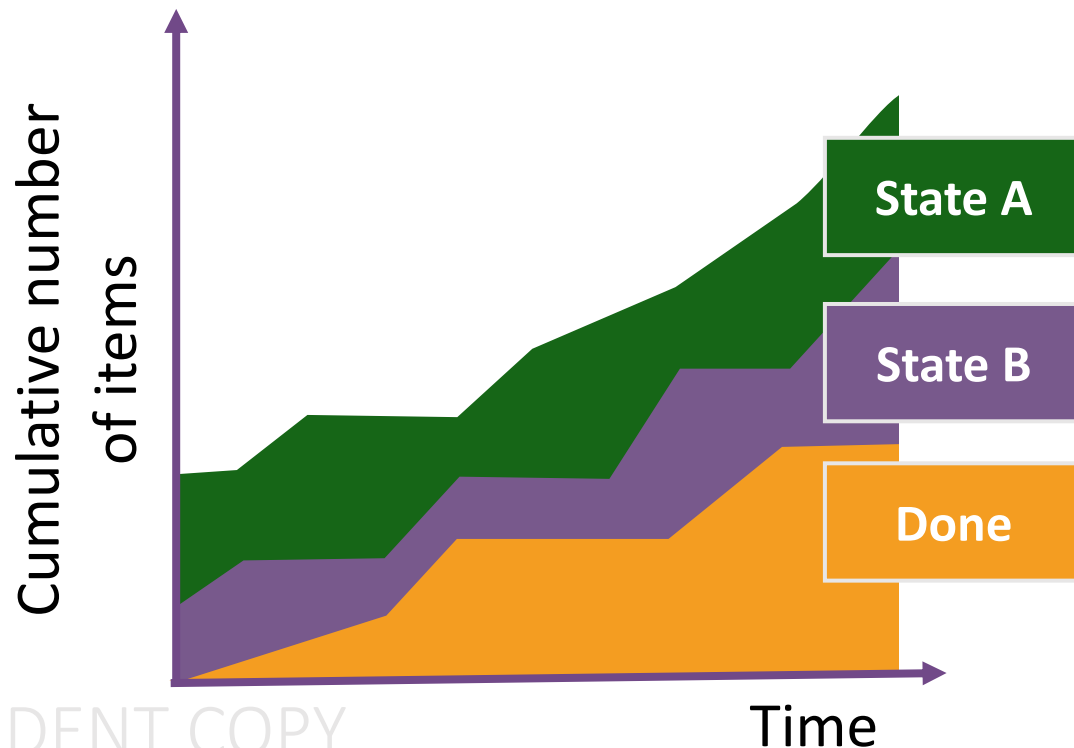
Your customer calls and asks how long the next request will take. What do you tell them?

# Lead time in your simulation

- Take a look at your lead time histogram:
  - Can you predict how long the next request will take?
  - What is the maximum lead time on your histogram?



# Kanban Key Diagram: Cumulative Flow Diagram (CFD)



The CFD:

- is generated based on counting the number of items per stage.
- shows cumulative number of items that have completed each stage on any given date.
- helps you understand the flow and lead time behavior in your system.

# CFD in your simulation

- Take a look at your Cumulative Flow Diagram:
  - Is the flow improving or reducing over time?
  - Can you explain why?



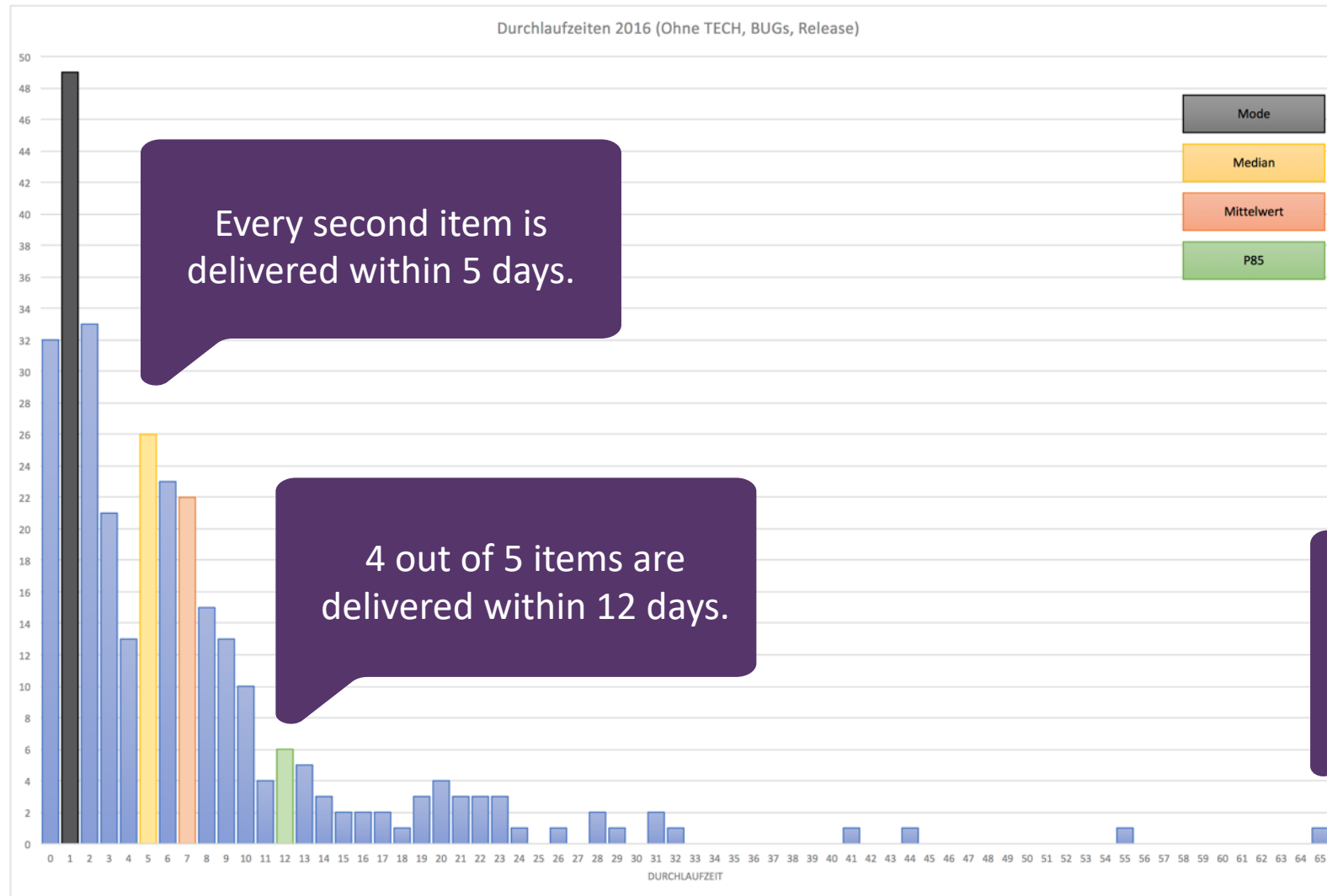
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# Real-World Charts

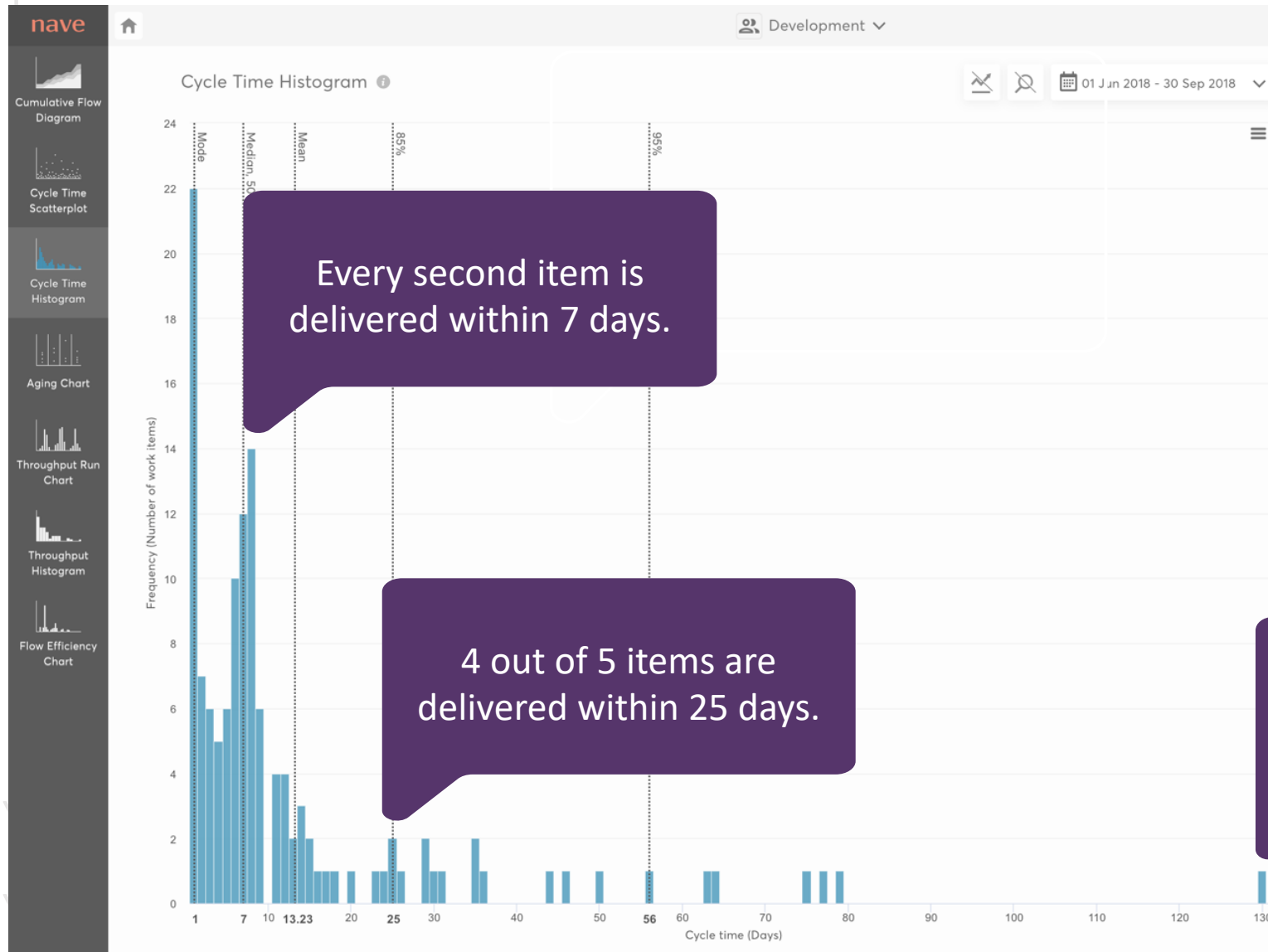
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# Example: Lead time distribution in software development

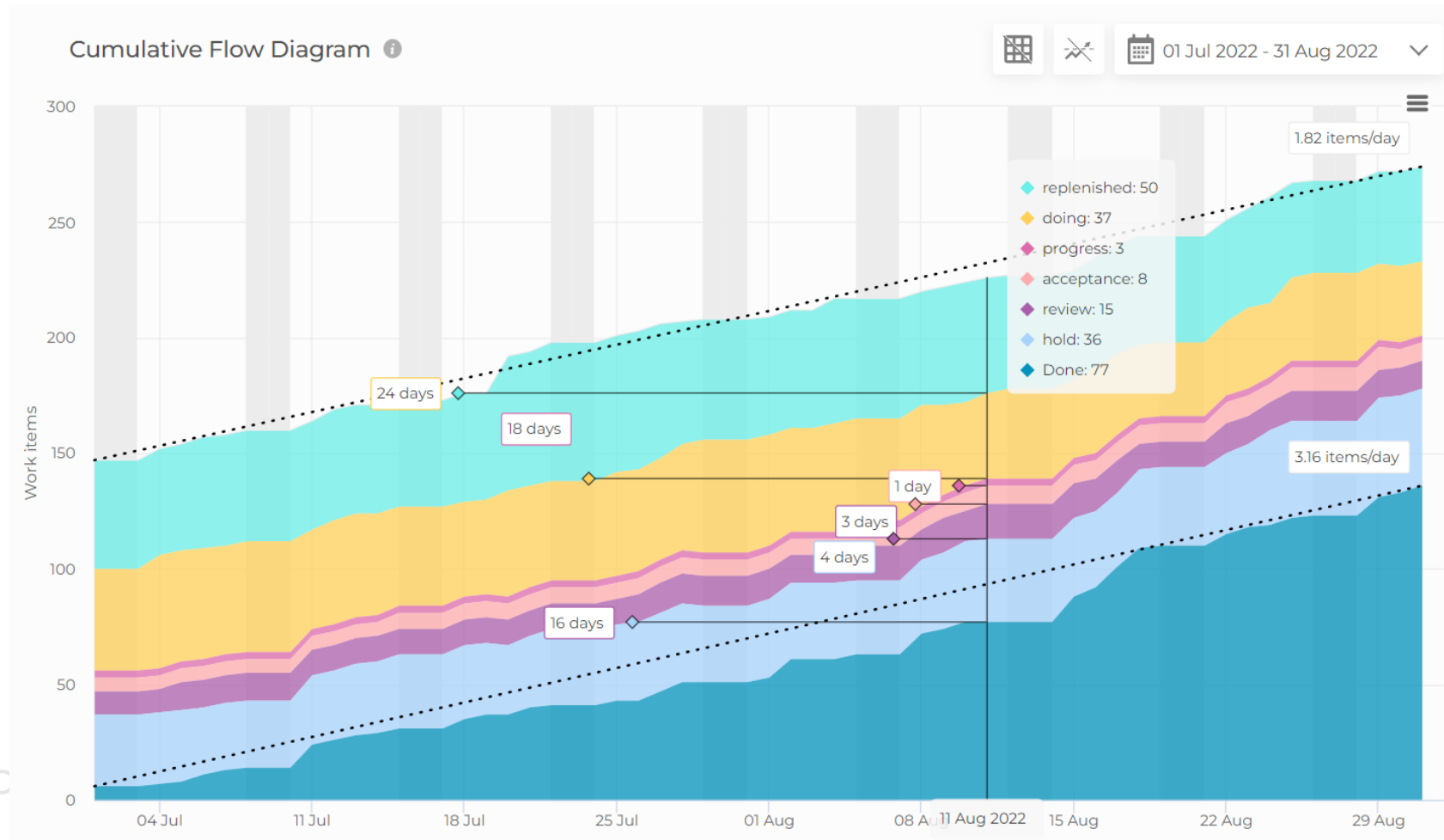


# Example: Lead time distribution (Nave)





# Example: Cumulative flow diagram in platform hosting



# Teach-Back: Make Policies Explicit

Present the summary and motivation for the Kanban practice “Make Policies Explicit”.



# Making Policies Explicit in your simulation

- How did you use policies in the simulation?
- Is there anything you can change or that you could have used more?



Come up with ideas for policies that you might make explicit while using a Kanban system to manage your work.

- Make notes of what might go into the policies.
- Put your items on the board.
- You will go through them afterwards.

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# Policies specific to Kanban systems

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# Classes of service

- Think about a trip you took lately, or other services you consume, e.g., online services.
- How were you as a customer and your requests treated?
- How did this compare to other customers?



# Do you treat all cards the same?

- Different items might have a different impact if not finished at a certain time. E.g., urgent items or items with a fixed deadline.
- Indicate the different types with colors, shapes, stickers, etc.
- Allow for differentiated treatment of the cards: use a set of policies that apply to one or more types of work. This will affect the selection, the time of starting and the order of delivery.

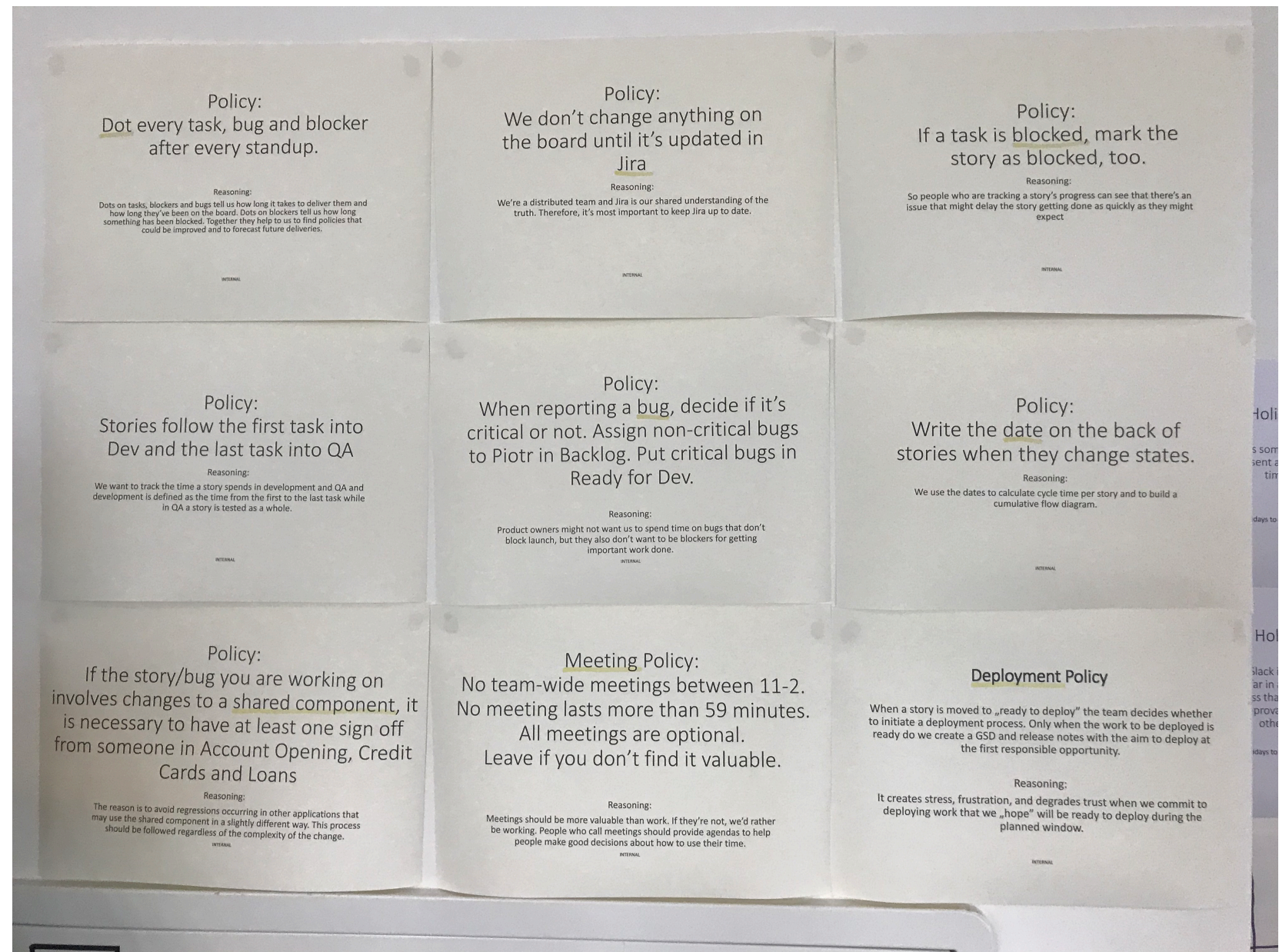
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# Real-world policies

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# Example: Policy wall from HSBC





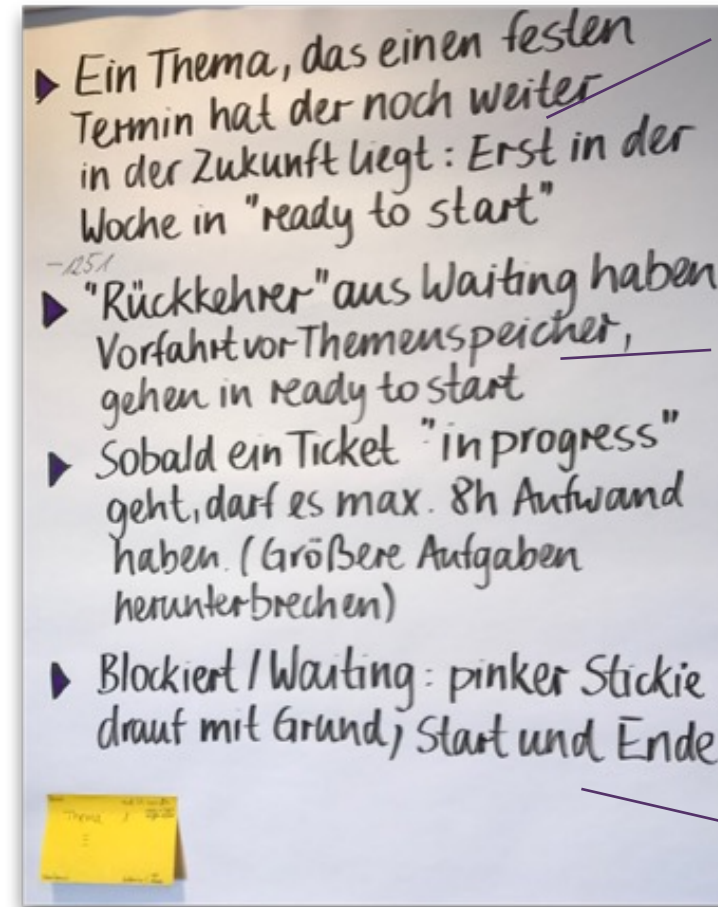
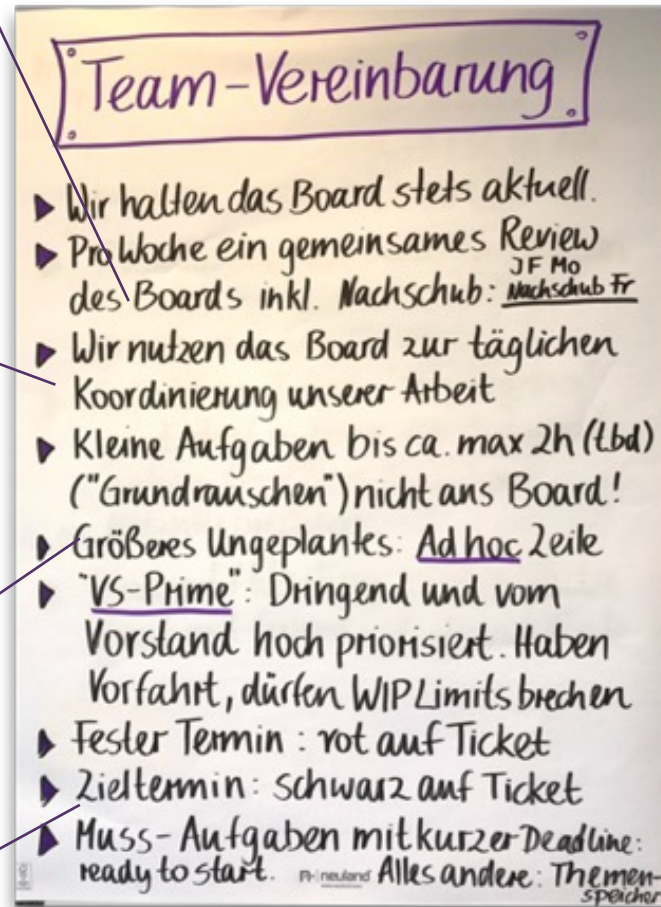
Agreement to keep the board current and use it to coordinate the day-to-day work, when to replenish

Tasks that take less than 2hrs do not go on the board

Prime lane for urgent tasks for the board of directors

Standards for the tickets and fixed dates

## Example: Team Agreement of an HR department in a bank



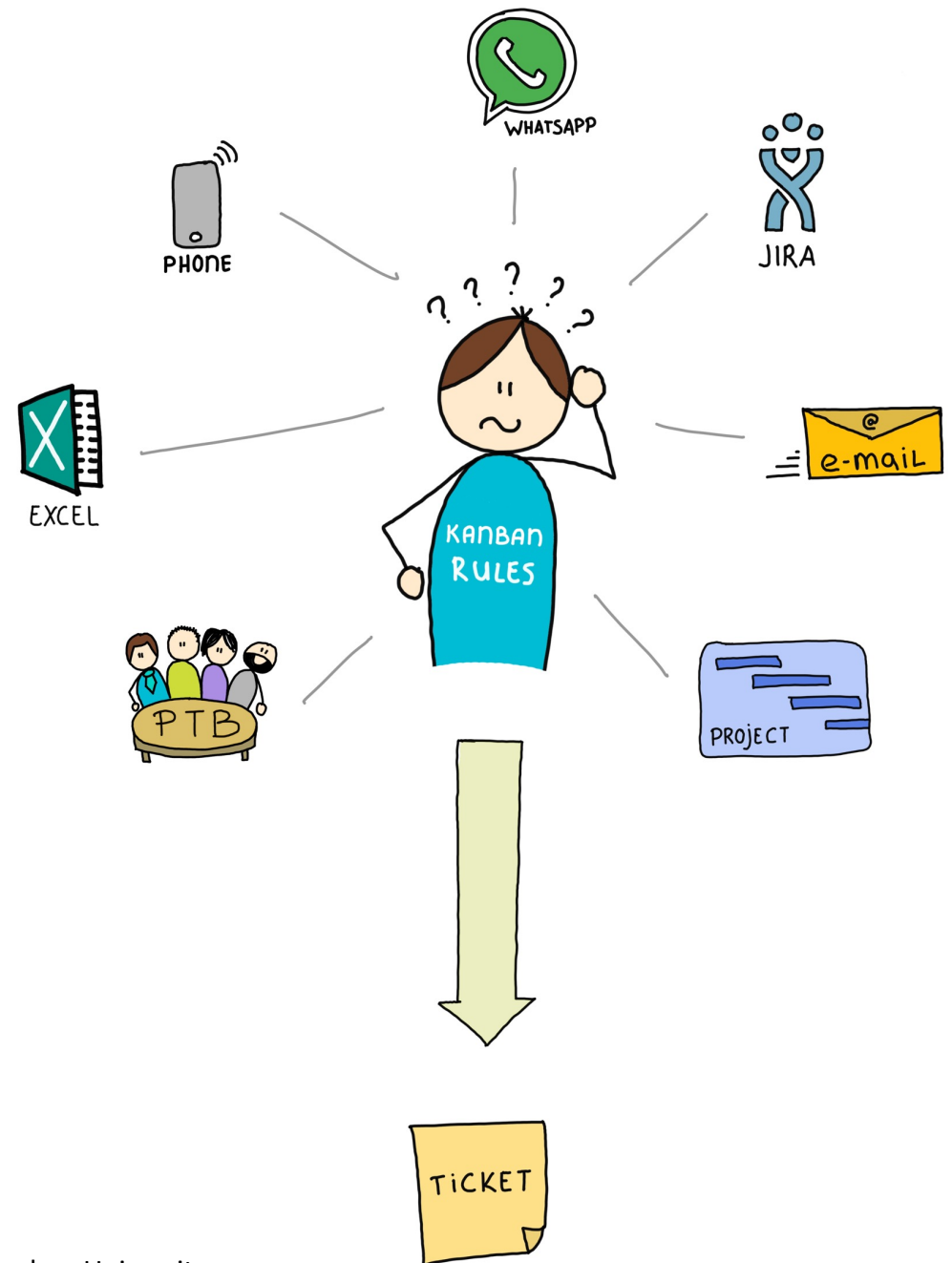
Keeping fixed date tickets off the board until the due date approaches

How to re-integrate "waiting" tickets into the flow

How to mark blocked tickets

# Example: Policy to channel work for an overburdened team

The team got work through several channels. The team agreed that customers needed to make a ticket in order for them to work on a specific item. Policy was on the window of the team room.



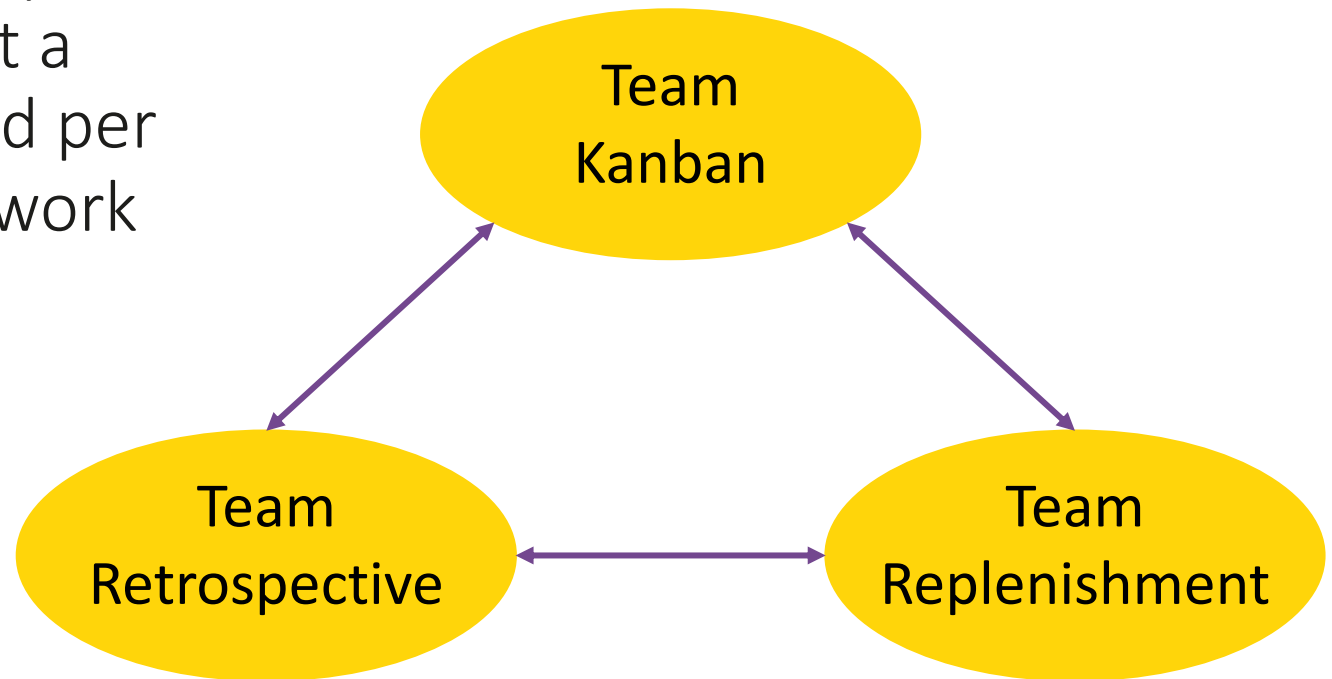
# Teach-Back: Establish Feedback Loops

Present the summary and motivation for the Kanban practice “Establish Feedback Loops”.



# Kanban cadences at team level

While work flows continuously, we have meetings and reviews at a cadence which can be defined per system that help us manage work and improve.



## Team Kanban Meeting



How can we deliver the work items in the system quickly?  
Has capacity become available? What should we pull next?



Walk the board from right to left. Manage work, not workers. Focus on completing work items and resolving issues.

Discuss priorities and team member pull decisions. Any options for collaboration? Treat issues that require more time after the meeting.

Discuss work items ready to be started. Dependencies or risks?



Everyone involved in the work at the board, usually someone moderates.



Meeting typically held daily at the same time in front of the board. 15min max!

# Establish feedback loops in your simulation

- Did you do a Kanban Meeting in your simulation?
- Who was facilitating that meeting?
- What did you discuss during this meeting?



# Run a Team Kanban Meeting

10 minutes

|          | 2                                                                                                                                                                           |                                                                                   | 5                                                                                                                                                                                                                                                                 |                                                                                                                                                                             | 3                                                                                   |      | ∞                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                 |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | Brainstorm                                                                                                                                                                  |                                                                                   | Develop                                                                                                                                                                                                                                                           |                                                                                                                                                                             | Peer Review                                                                         |      | Customer Review                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                 |
| Selected | Doing                                                                                                                                                                       | Done                                                                              | Doing                                                                                                                                                                                                                                                             | Done                                                                                                                                                                        | Doing                                                                               | Done |                                                                                                                                                                                                                                                                                                                                                             | Done                                                                                                                                                                            |
|          | <br><br> |  | <br><br> | <br> |  |      | <br><br><br> | <br><br> |



# Reflection: Kanban Meeting

- Report back from your groups' Kanban Meetings.
- Observations? Further questions?



## Team Retrospective



Reflect on how the team manages their work and how they can improve.



Done in front of the Kanban board, focusing on the completed work items.

Collect observations / occurrences, e.g., missing / consider doing, ideas worth exploring further, annoying / enjoyable, and issues related to current policies.

Categorize the collected feedback and define improvement actions.



Attended by the whole team, often with a facilitator.



Should be held regularly, limited to one hour.

# How did work get onto the board during the simulation?

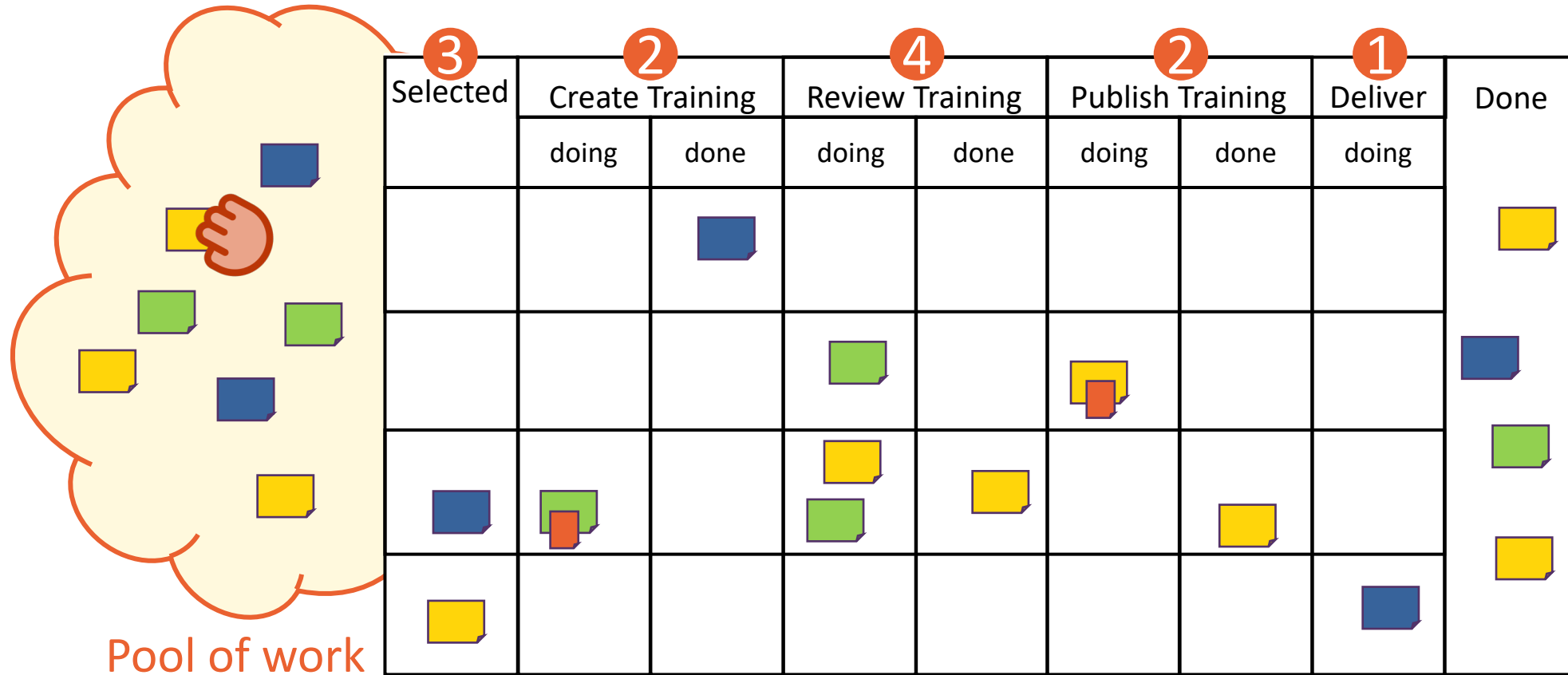
- Briefly discuss with your groups how work got onto the board.
- Who did it, based on which decisions / agreements?
- How is this in your real-life environments?



# Where do the tickets come from?

- Usually, there is an unlimited amount of work in front of your board, containing all the items requested by your customers.
- In Kanban, it can serve as a buffer between the time of request and the start of its implementation.
- This is often called a “Pool of work”.

# Pool of work in front of your board



## Team Replenishment Meeting



Select work items from the backlog to commit next, and to replenish the queue for delivery until the next Replenishment Meeting.



Discuss topics related to the requested work. Like dependencies on other work items and technical risks associated with implementing the potentially selected work items. And like information needed to facilitate implementing the potentially selected work items. Decide the order in which to pull the selected requests.



Attended by the whole team, often with a facilitator who is in contact with the customer.



Weekly, or as needed, based on the arrival rate of new information.

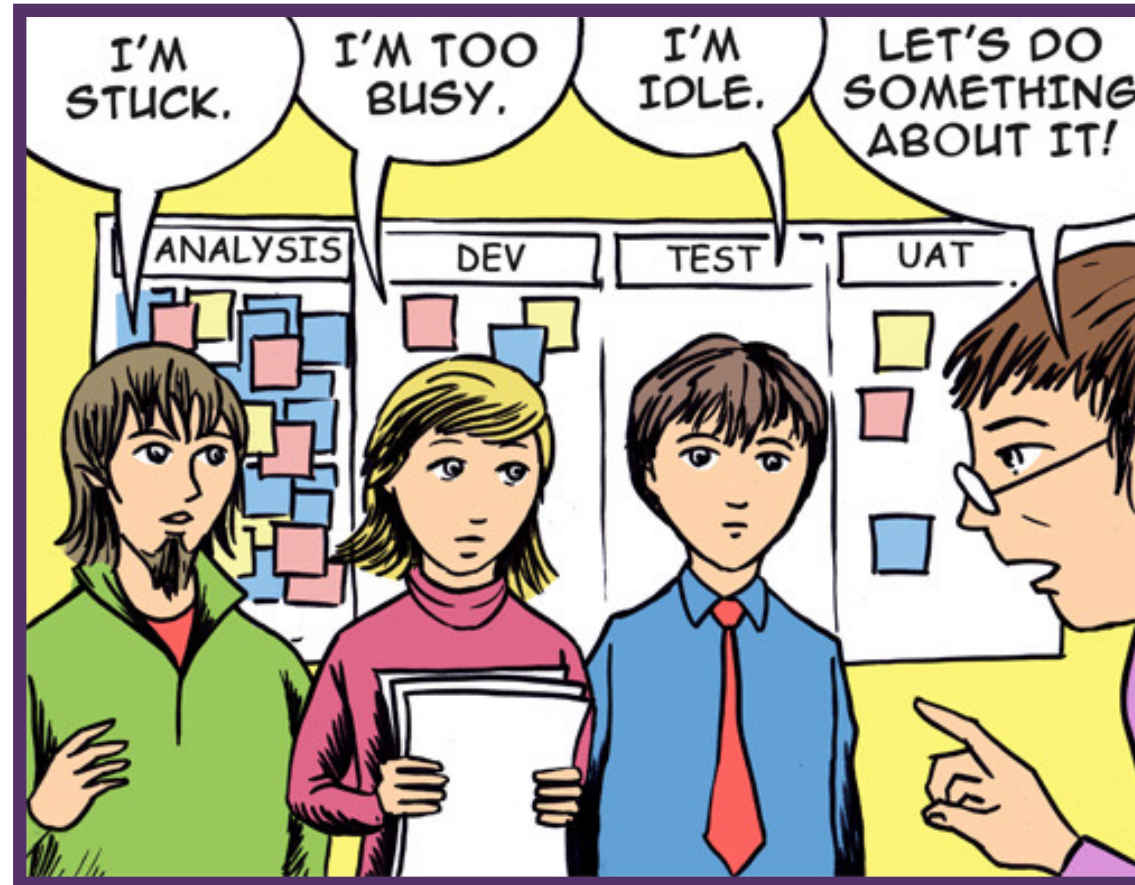
# Teach-Back:

## Improve collaboratively, evolve experimentally

Present the summary and motivation for the Kanban practice “Improve collaboratively, evolve experimentally”.



# The essence of Kanban: Meaningful conversations





# Kanban gives you options

1. Choose what option works best for a particular challenge in the context of your organization.
2. Experiment with that option and collect feedback during the experiment.
3. Reflect, gain new insights. Did the experiment fail or succeed?
4. Iterate, start from 1. Either with this challenge or a new one.



Photo by Egor Myznik on Unsplash



There is no right or wrong  
in Kanban. Just a more or  
less mature Kanban  
implementation.

# Module 3 Reflection

- What do you take away from module 3?
- Make notes in your workbook.

## Module 04

# The Kanban Method

Reviewing the definitions of the method building on the experiences made so far.

# Concept Center: The Kanban Method



Form groups of 3-5 people.  
Appoint a facilitator per group.

- Work collaboratively through these stations:
  1. Myths and Facts.
  2. Principles Discovery.
  3. Self-correcting worksheets.
- You have 30min for all three stations.

# Wrap-Up for Module 4

- We will go through the concept center results, one by one:
  - All groups to share their observations and insights.
  - We will address any remaining issues / questions.
- Take notes in your workbook!





# Let's do something about it!

- Consider the environment you work in.
- Which ideas or inspiration for making improvements did you get in the class?
- Which first step can you take next Monday?
- Take notes in your workbook.





## Module 05

# Class Closure

The benefits of applying Kanban in a team, and further outcomes when taking the journey further.  
Final reflections.

During the next two minutes,  
name as many benefits of applying  
Kanban in a Team as you can.

Points counts if:

- The person speaking is not repeating what was said before.
- No two people speak at the same time.

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# Outlook: The path to greater organizational maturity

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# There's more to Kanban ...

**Team Focused**



**Customer Driven**

**Fit-For-Purpose**

3 Change management principles  
6 Practices

3 Service delivery principles  
Roles

More in depth practices  
Kanban Maturity Model

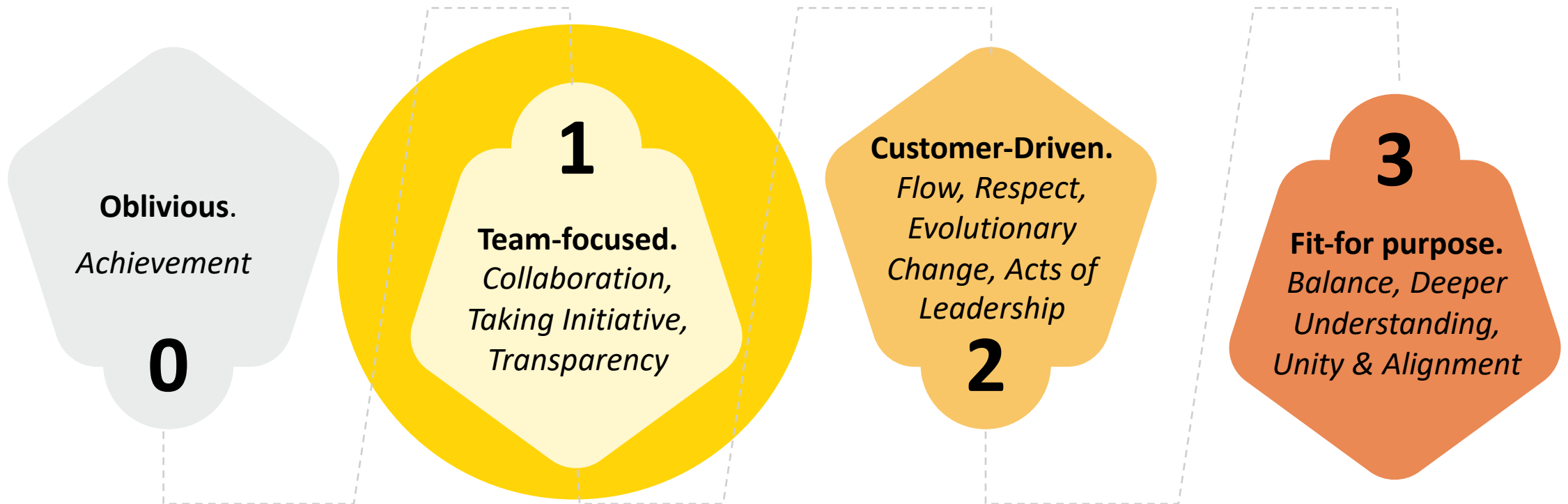
# Kanban Maturity Model

The path toward greater organizational maturity



| SCOPE                             | LEVEL                    | CULTURAL FORMS     |
|-----------------------------------|--------------------------|--------------------|
| Task                              | <b>0</b> Oblivious       | Individualism      |
| Deliverable                       | <b>1</b> Team-Focused    | Individual Heroics |
| Product/<br>Service               | <b>2</b> Customer-Driven | Managerial Heroics |
| Product lines/<br>Shared services | <b>3</b> Fit-for-Purpose | (Customer) Purpose |

# Different levels of organizational maturity



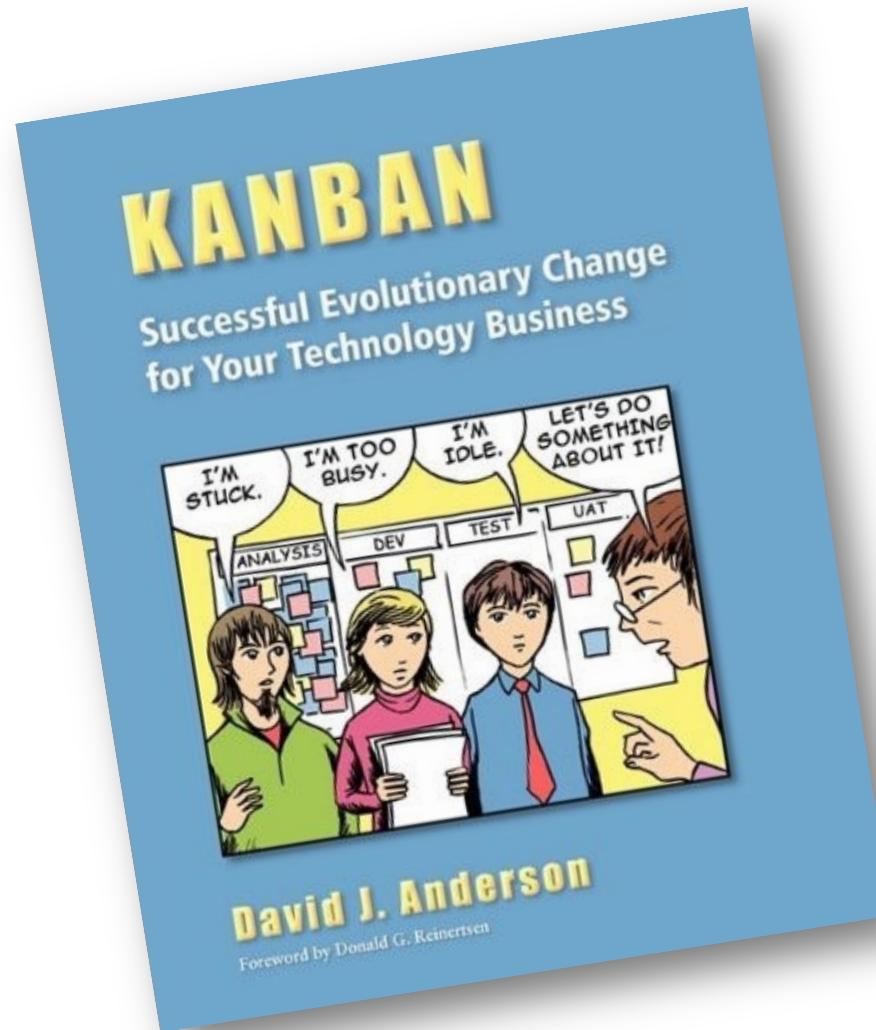
**Focus of this class**

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Closure

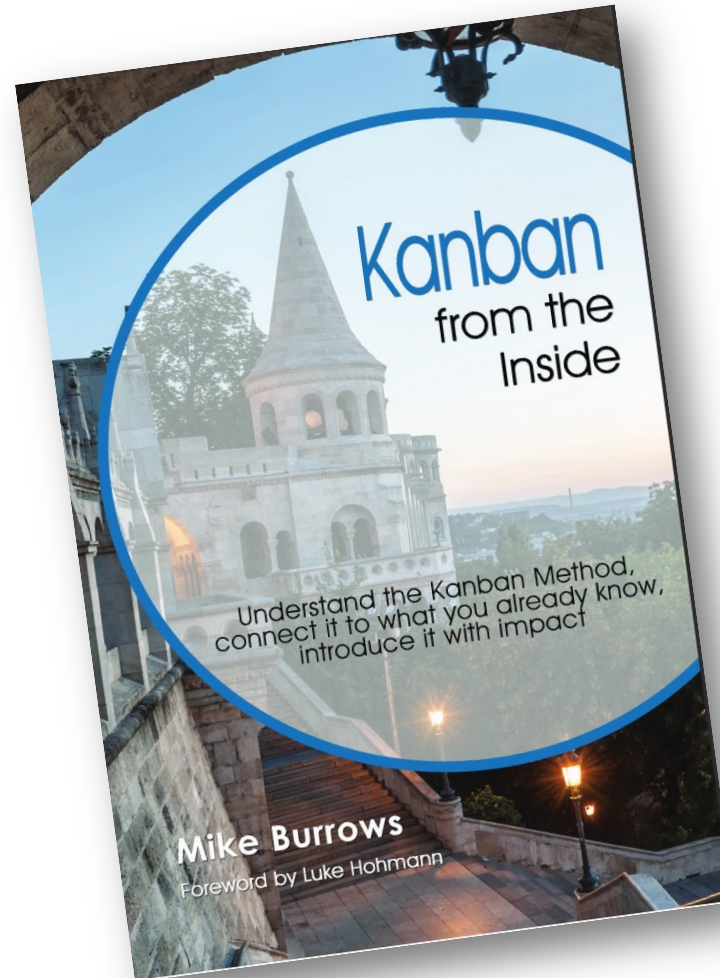
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# Kanban “Blue Book”





# Kanban from the Inside



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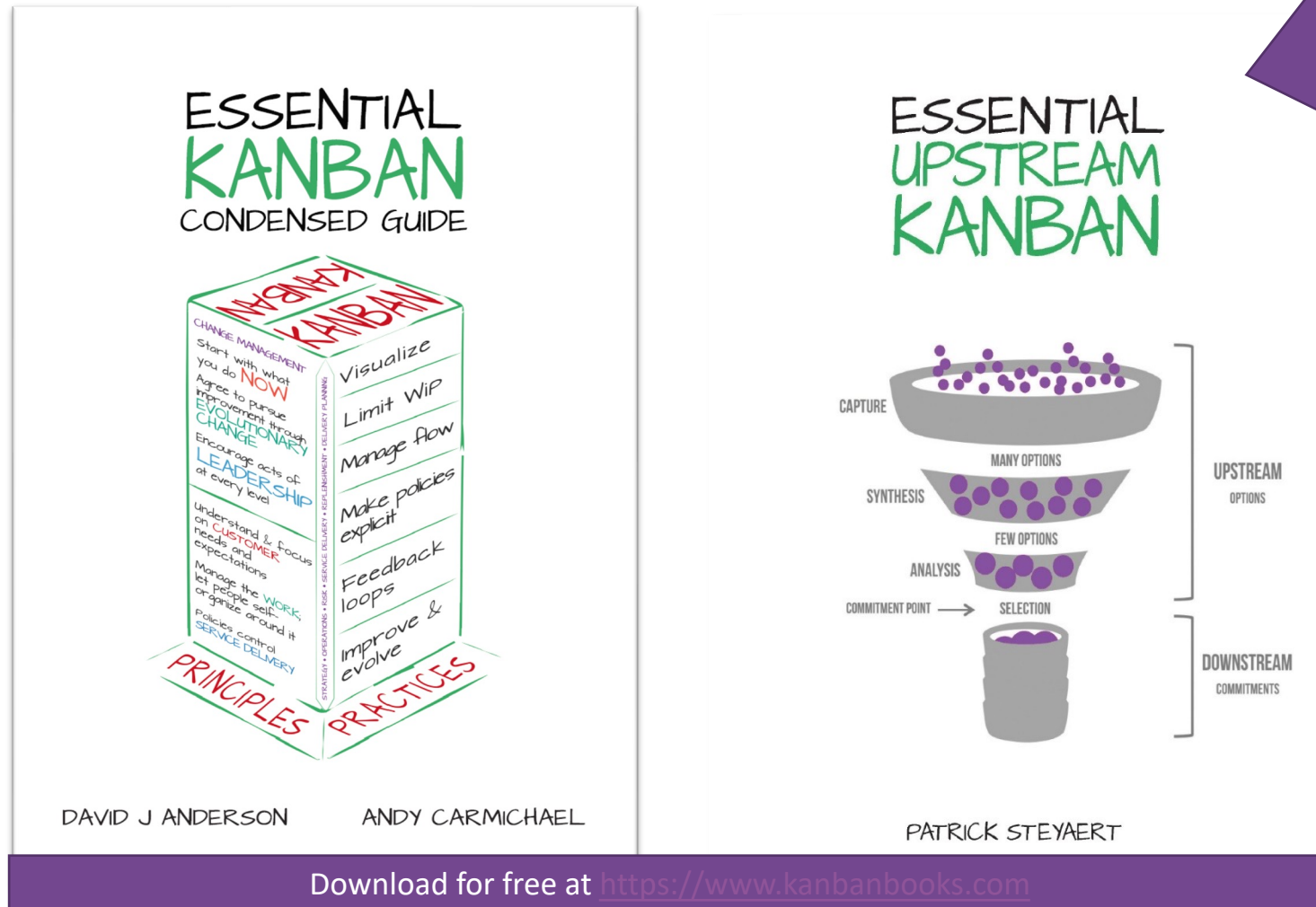
# Kanban Maturity Model

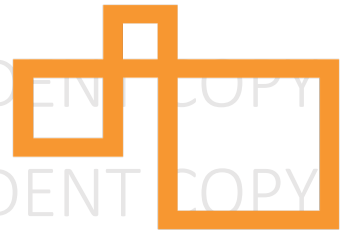


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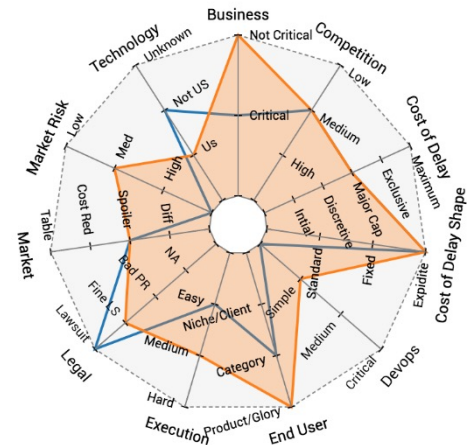
# Essential Kanban Guides

Also available in French,  
Spanish, Portuguese  
and German.



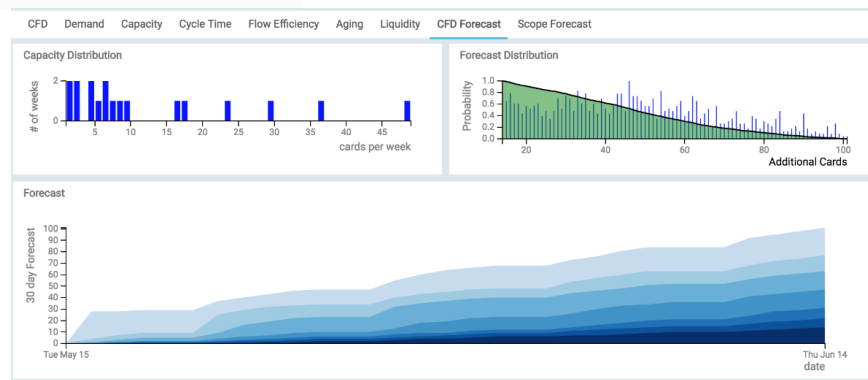
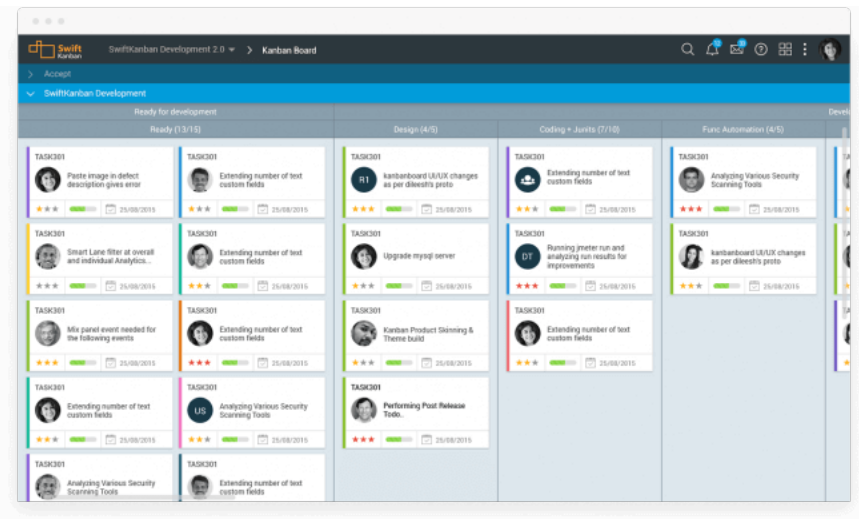


**Swift**  
**Kanban**  
from  nimble



Visualize your workflow and increase your team's productivity with SwiftKanban visual management and collaboration tool.

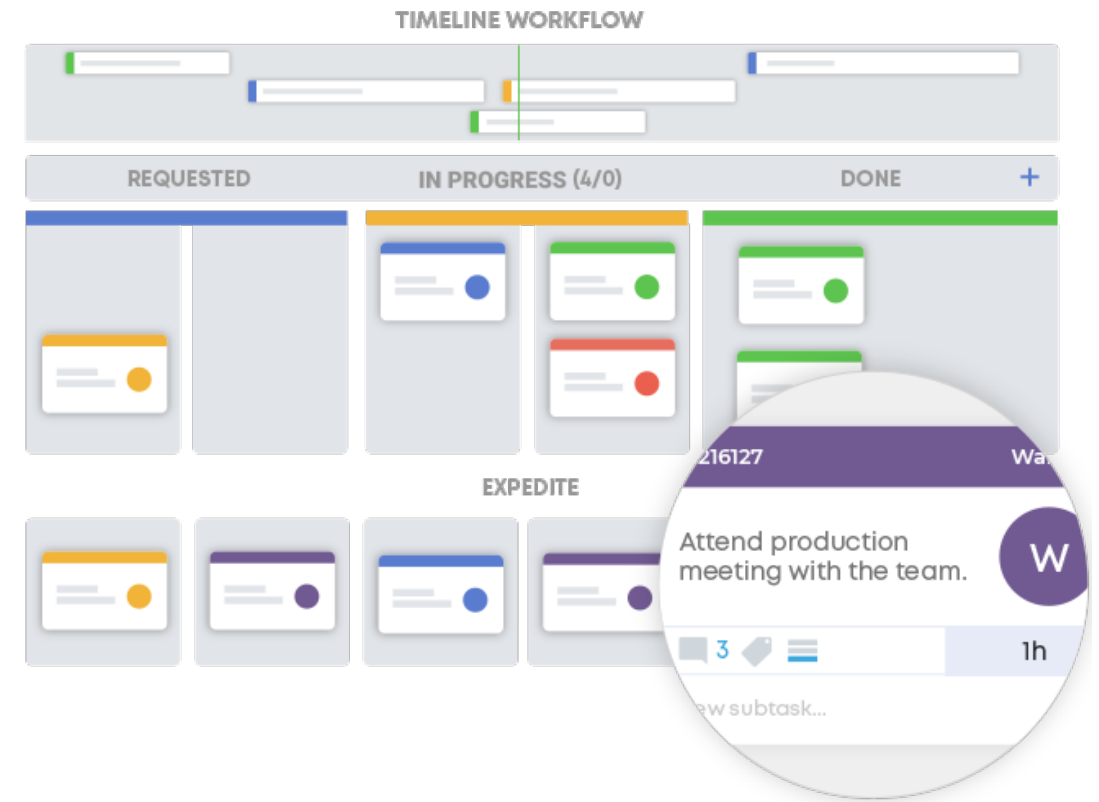
Nimble's SwiftKanban helps remote/distributed teams across business functions with their collaboration and work management needs. It enables you to do Kanban the right way - YOUR way - with robust analytics and support for Team, Portfolio and Upstream Kanban, Scrum/Scrumban and Enterprise Services Planning





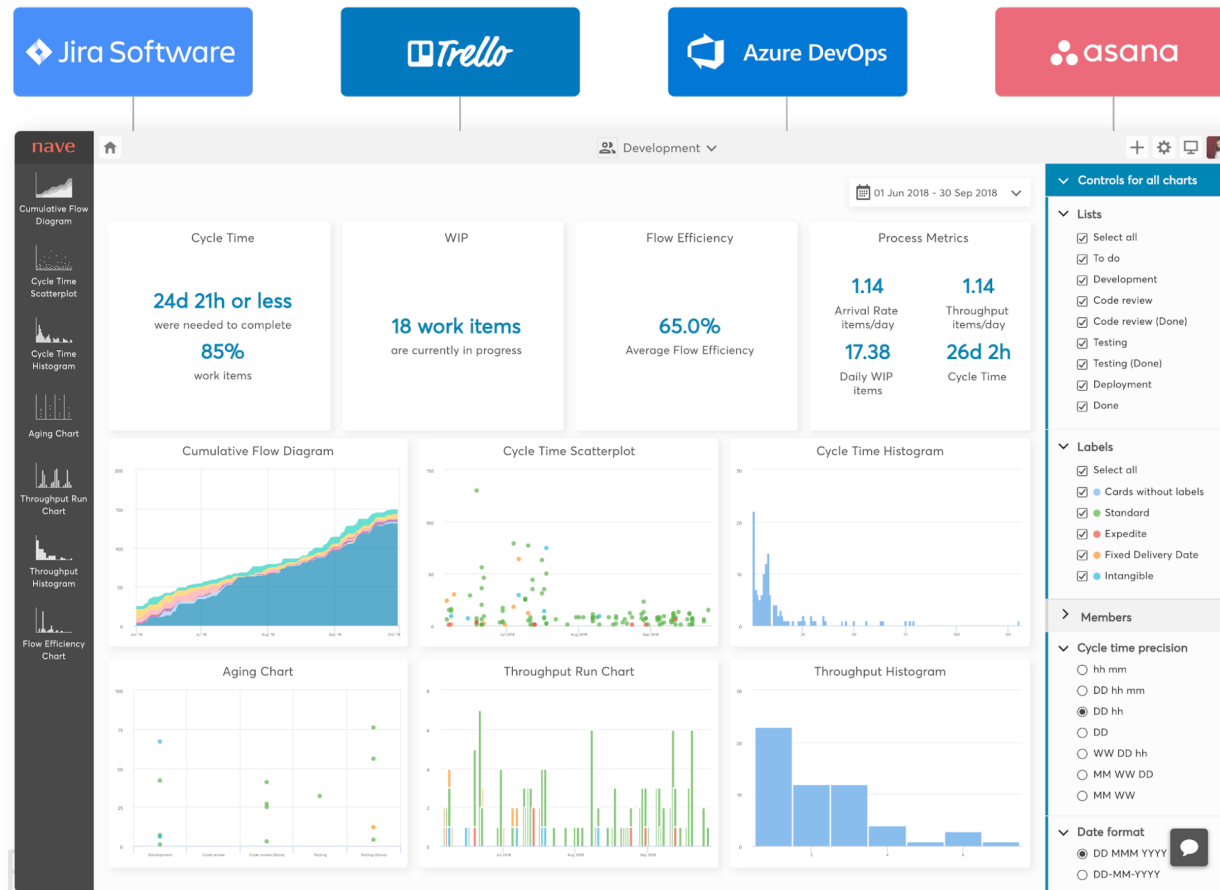
Gain visibility across all projects, connect planning with execution and deliver 3x faster with Kanbanize.

Managing dependencies and tracking the overall status has become the major time-eater for most of the managers and their teams. Having flexible Kanban Boards and built-in Business Rules, you automate all existing processes, dependencies, and interactions. This makes status always accurate, and nothing falls through the cracks.





# Nave (getnave.com)

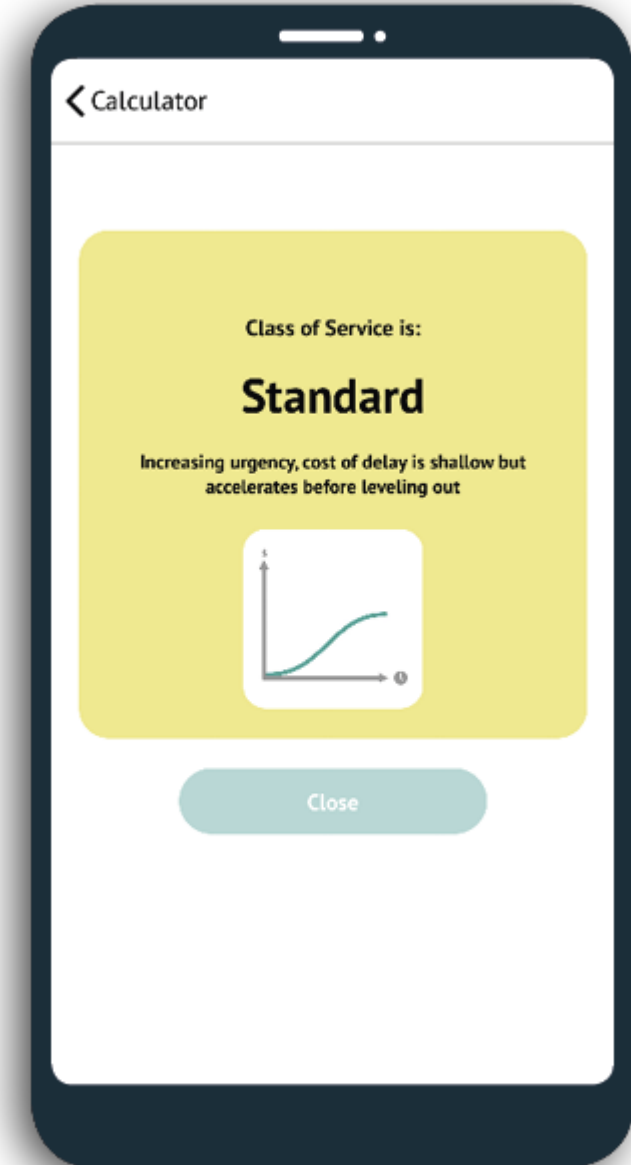
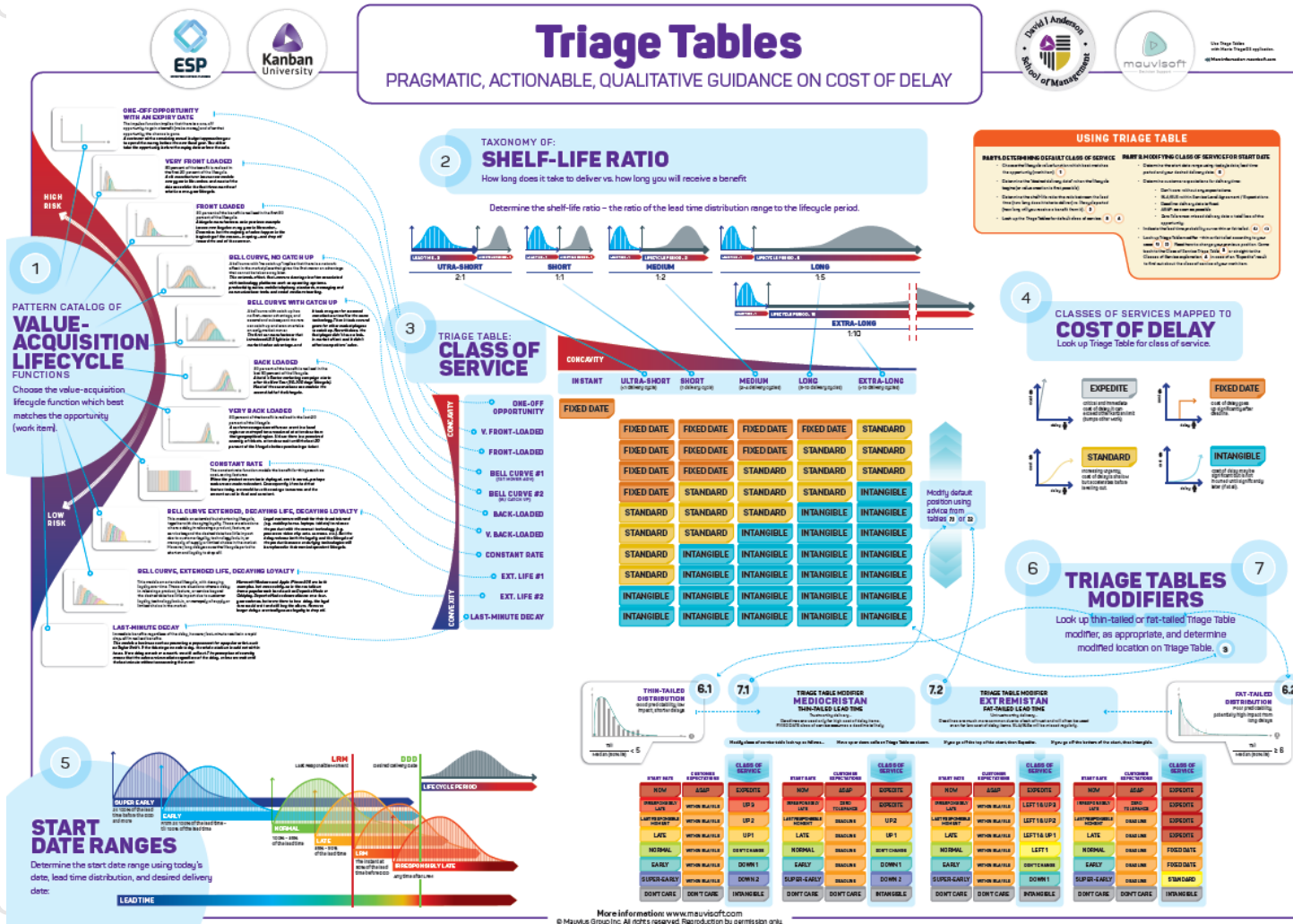


# nave

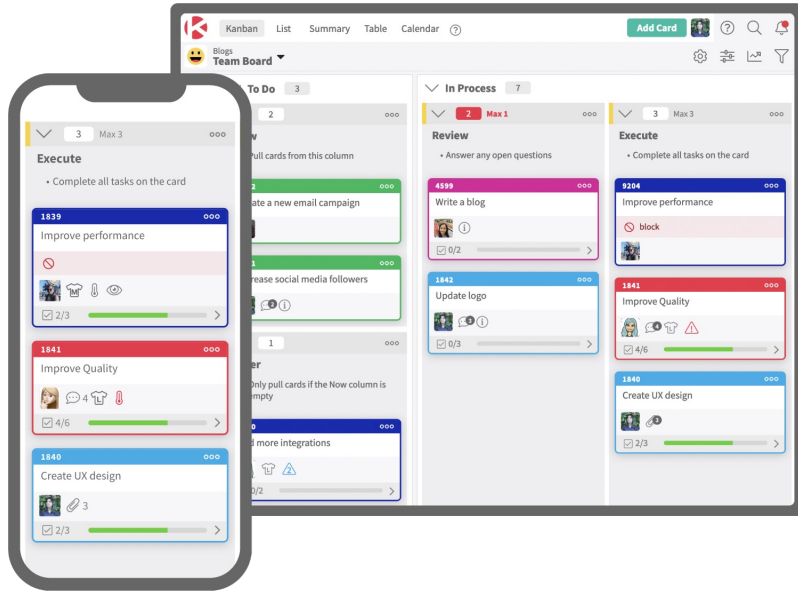
## Kanban Analytics on Your Preferred Tool

- Evaluate your workflow performance
- Analyze lead times and cycle times
- Monitor how long work stays in progress
- Identify bottlenecks as they occur
- Calculate your work delivery rate
- Make probability-based forecasts

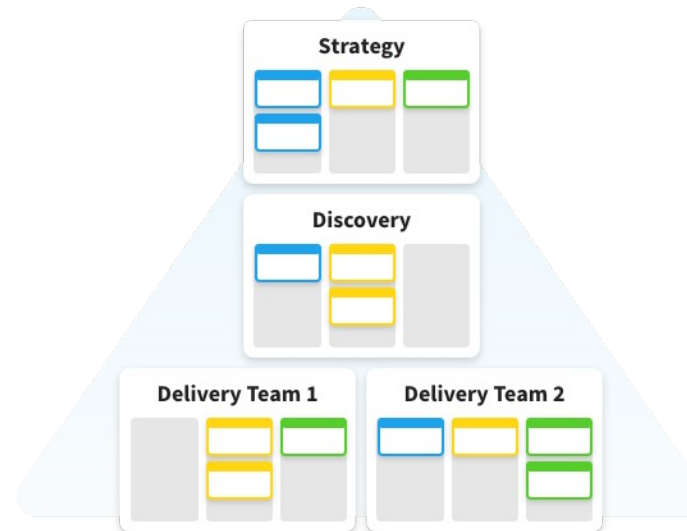
# Menta Triage



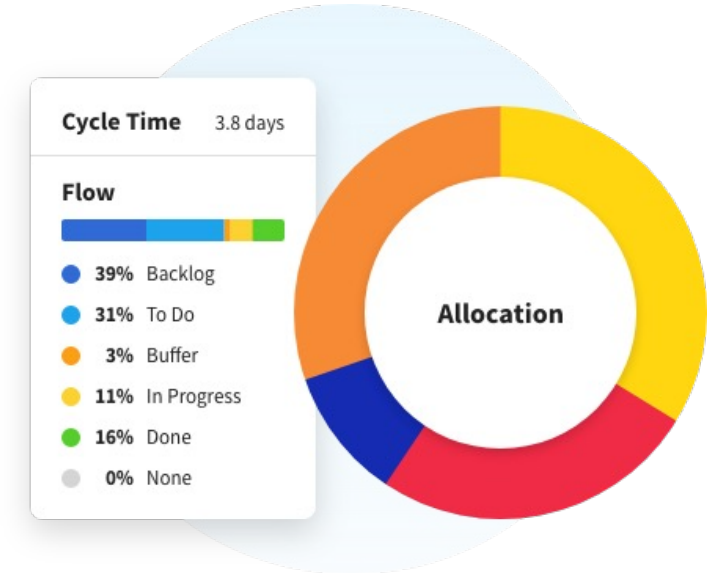
**Kanban Zone** enables organizations to visualize, measure, and efficiently deliver goals using the Kanban method.



**Responsive  
Design**



**Portfolio  
Kanban**



**Kanban  
Metrics**

The most **Flexible** way to **Visualize** and **Connect** every aspect of your organization for an effective **Kanban system**.

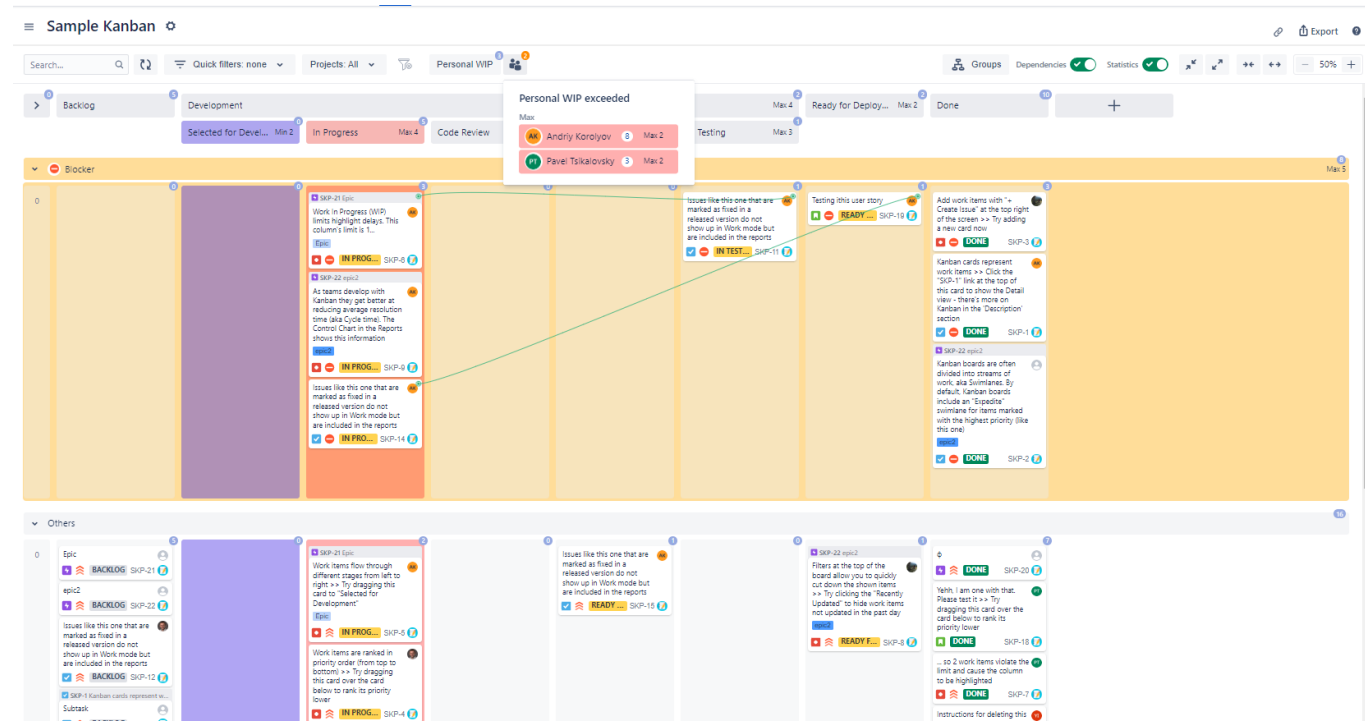




# Advanced Agile & Kanban Boards

Atlassian Marketplace Partner App for Jira by Release Management

- **Kanban** boards with column grouping and advanced WIP configuration (personal, column, column group, swimlane, intersection of column and swimlane).
- Great variety of **visualization techniques** by building a canvas with any Jira issue field to column or swimlane.

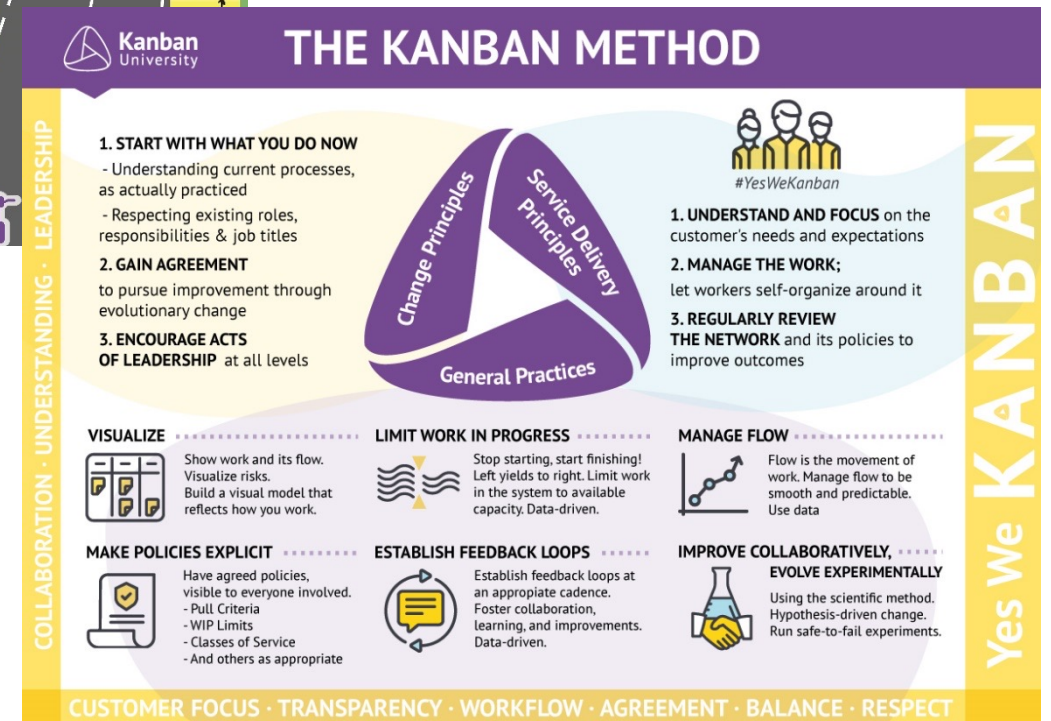
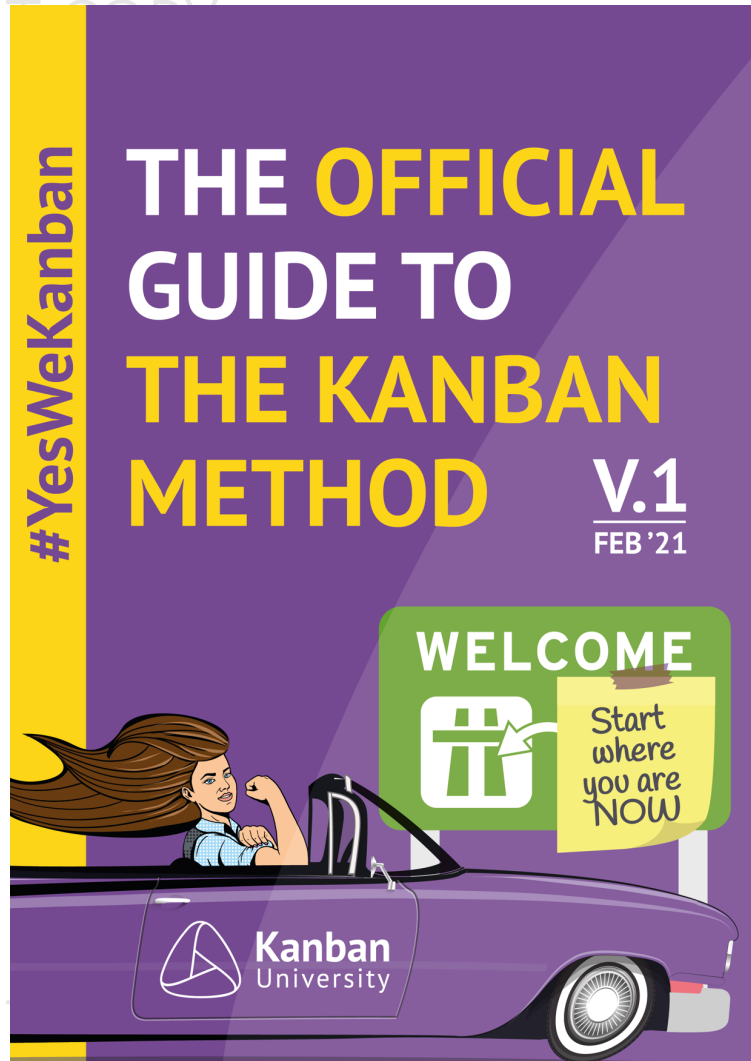


[Learn more](#)



**RM / RMCloud**

# The Official Guide to the Kanban Method



# How were your objectives for this class achieved?

- Move your stickies along the scale provided by your trainer. Per sticky: To which degree has this objective been fulfilled?
- Important: Please put additional stickies on the original ones with the key reason for this rating.

# Final Learning Log

Take a around the room and review your personal notes. Add anything important to you. You may think of:

- What has most surprised you?
- What is still puzzling you?
- What do you take away from all of this?





**Kanban**  
University

**Thank  
You!**

# Community contributors

**These people supported this class by designing, developing, reviewing, piloting.**

Jean-Paul Bailey, Andreas Bartel, Mark van den Brom, Dan Brown, Angela Doyle, Igor Filipyev, Bianca Griffioen, Ivaylo Gueorguiev, Maarten Hoppen, Adam Hsu, Paul Klipp, Steve McGee, Brigitte Pfeifer-Schmöller, Jeremy Pullen, Lukas Schmidt, Dieter Strasser, Abigayle Wall, Van Wray.

*Thank you*