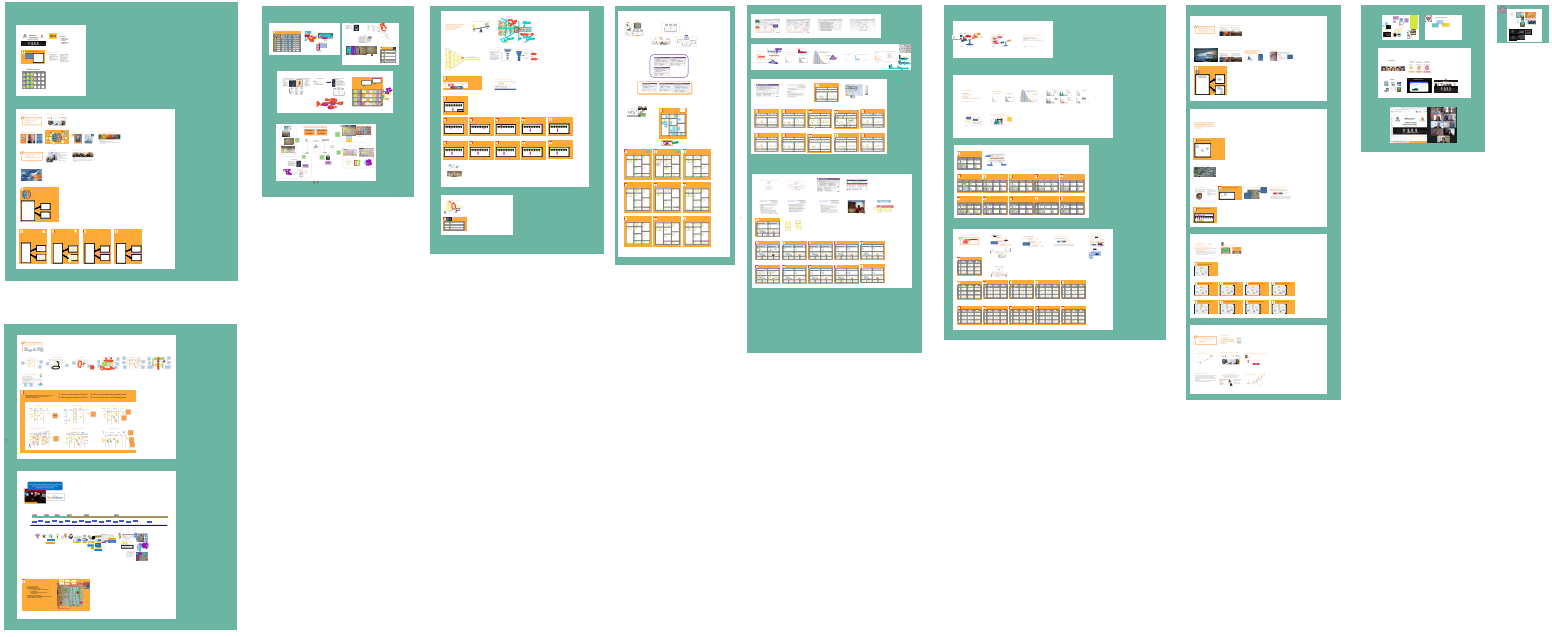
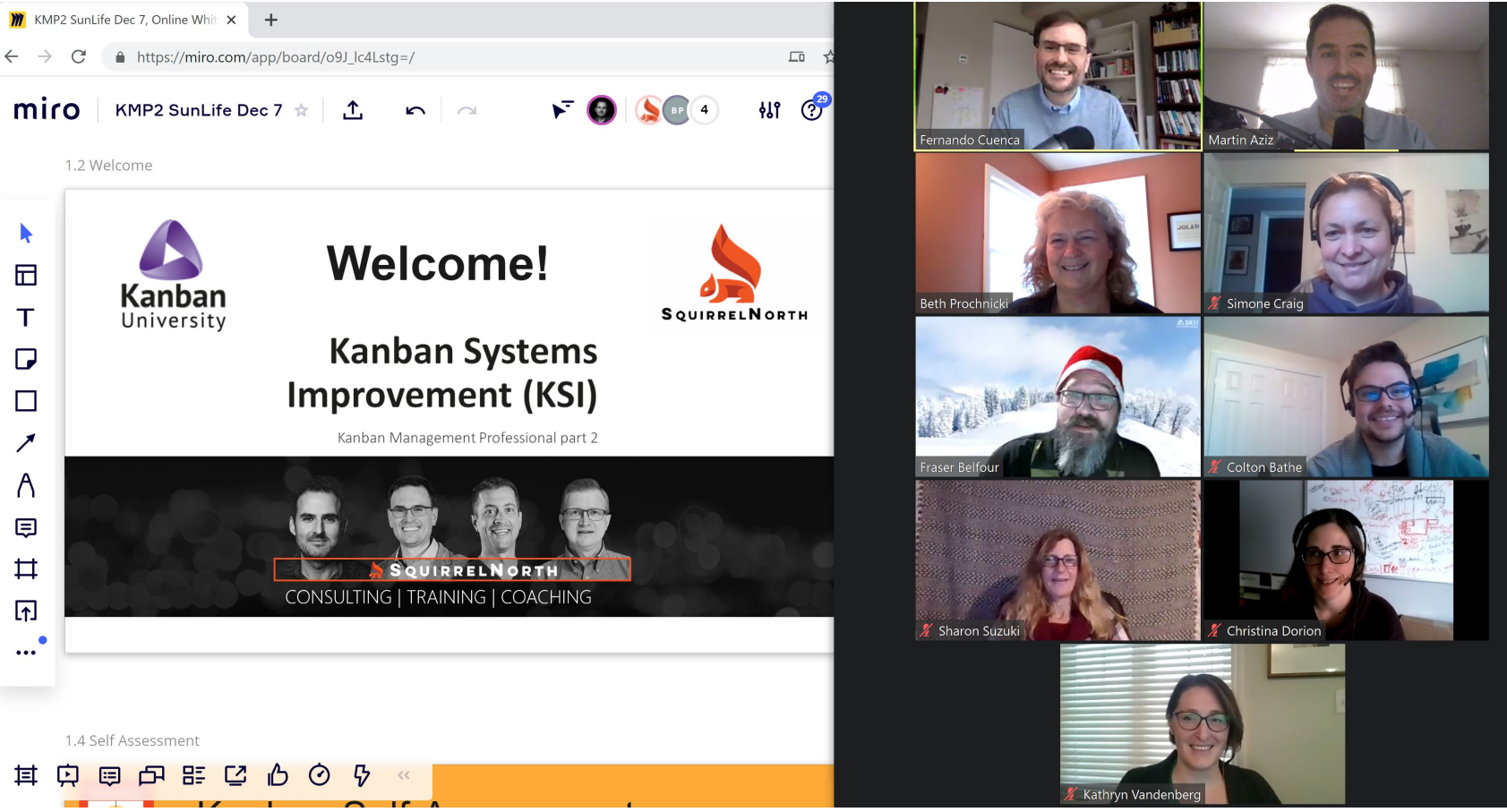
Kanban University

SQUIRRELNORTH

s Improvement (KSI - KMPII)

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KMP2 SunLife Dec 7
1.2 Welcome
Kanban University
Welcome!
SQUIRRELNORTH
Kanban Systems Improvement (KSI)
Kanban Management Professional part 2
SQUIRRELNORTH
CONSULTING | TRAINING | COACHING
1.4 Self Assessment
Fernando Cuenca
Martin Aziz
Beth Prochnicki
Simone Craig
Fraser Belfour
Colton Bathe
Sharon Suzuki
Christina Dorion
Kathryn Vandenberg

Welcome!

Kanban Systems Improvement (KSI)

miro

Let's Review:
- Select Tool
- Sticky notes
- Text
- Collaboration Cursors

Kanban Self-Assessment

Purpose of this Class

Schedule Overview

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1						
Week 2						
Week 3						
Week 4						

Introduction for the Kanban Method

"Why Kanban instead of traditional change methods?"

Traditional Changes in an Org & Process

Kanban Principles

Future Practices

Maturity Model Kanban Methodology

Kanban Maturity Model

Agile Kanban

Lean Kanban

Kanban Maturity Model

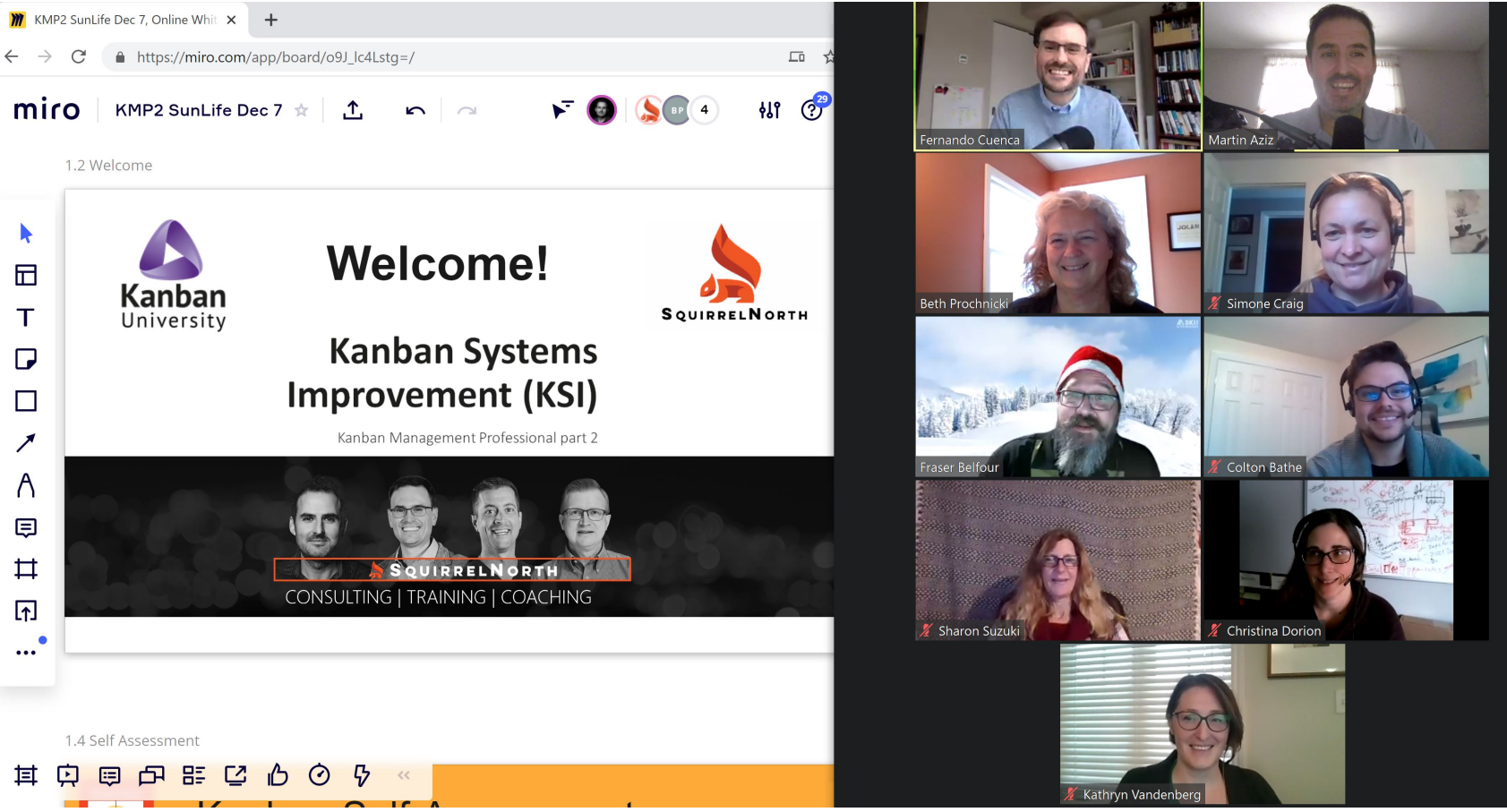
S1

S2

Kanban Maturity Model

Kanban Maturity Model

Kanban Maturity Model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Welcome!

SQUIRRELNORTH

Kanban Systems Improvement (KSI)

Kanban Management Professional part 2

Purpose of this Class

- Take a pro-active, rational and well-communicated approach to continuous improvement.
- Achieve higher levels of both internal and external customer satisfaction, sustainably.
- Outline a path to increase organizational maturity, including how to overcome resistance to change.
- Implement simple and effective cross-boundary coordination.
- Use proven tools and methods to increase capability, remove delays, reduce variability and manage bottlenecks.
- Develop an understanding of evolutionary change and avoid the tendency for pushing disruptive, presumptive solutions.
- Effectively scale workflow agility without changing job titles, organization structures, or causing other disruptions.
- Increase skills and implementation of the 6 general practices of Kanban.

Schedule Overview

New grid

	Monday	Tuesday	Wednesday	Thursday	Friday
Session 1	9:30-10:30 Intro / Resistance Martin	9:00-10:30 Replenishment Fernando			
Session 2	11:00-12:30 Evolutionary Change Martin	11:00-12:30 Service Deliver Review / Ops Review Fernando	11-12:30 (if needed)		
Session 3	1:30-3:00 Commitment / Scaling Martin	1:30-3:00 Improving: Lead Time & Sources of Delay Fernando			
Session 4	3:30-5:00 Upstream Martin	3:30-5:00 Variability Fernando			

Motivation for the Kanban Method

> Why Kanban instead of traditional change methods?

Traditional Change is an A to B Process

How Humans process Information

How we Process Change

Adopting new processes challenges people psychologically & sociologically

- Most people resist change because individually they have more to lose than gain
  - Loss of status and identity
  - New responsibilities threaten self-esteem & social status
- Kanban is a change management method to create conservative, but evolic shaking up the current social framework

> How is the Kanban Method a different type of change management?

The Kanban Method ...

- Rejects the traditional approach to change
- Believes it is better to avoid resistance than to push harder against it
  - Don't install new processes
  - Don't navigate
- Is designed for carbon-based life forms
  - Evolutionary change that is humane

The Kanban Method ...

- Catalyzes improvement through use of Kanban systems and visual boards
- Takes its name from the use of Kanban signals but it is just a name
- Anyone who thinks Kanban is just about Kanban (boards & systems) is truly mistaken

Overcoming Resistance to WIP limit

List reasons people might object to WIP limits. What are they afraid of?
- Write each fear on a sticky note
- Are the objections emotional or logical?

For each emotional resistance...
- How might we mitigate the resistance?
- What stronger emotion might help us overcome it? How might we design a visualization to raise awareness?

For each logical resistance
- What logical argument is needed to overcome it?

Resistance

Logical

Emotional

Overcoming Resistance to WIP limit — Group 1

List reasons people might object to WIP limits. What are they afraid of?
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Resistance

Logical

Emotional

Overcoming Resistance to WIP limit — Group 2

List reasons people might object to WIP limits. What are they afraid of?
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For each emotional resistance...
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Resistance

Logical

Don't know what to do first

can't see how this will work in my journey

Emotional

WIP less high - too much work

people want to work on multiple things

WIP less low - not enough work

Overcoming Resistance to WIP limit

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How Humans process Information

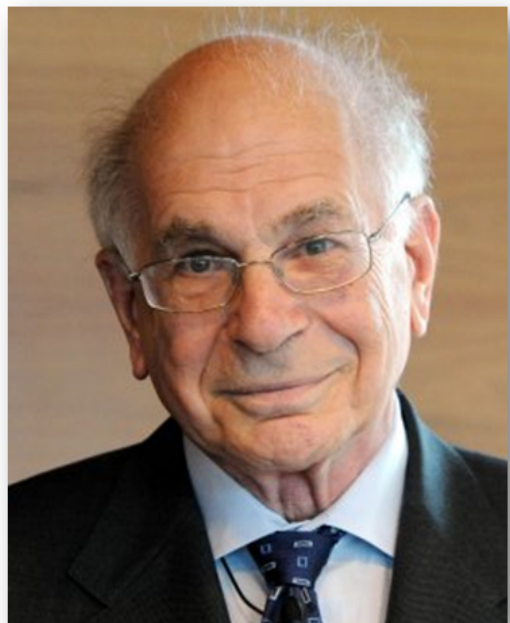
Learning by experience

FAST!

But slow to learn.

System 1

Sensory Perception
Pattern Matching



Daniel Kahneman

Learning by theory

SLOW!

But fast to learn.

System 2

Logical Inference
Engine

S1

Making coffee

Responding to a large sound

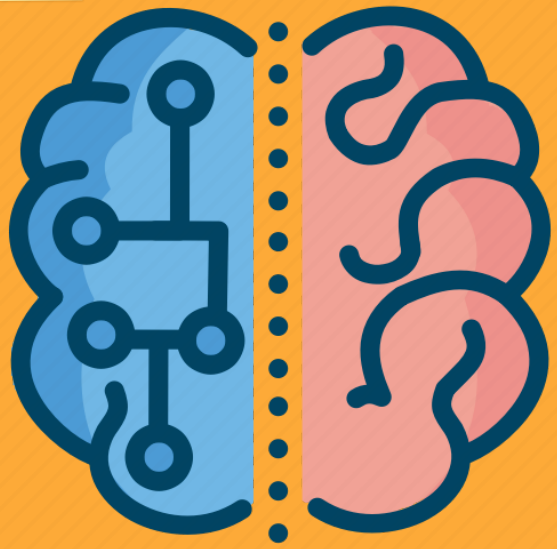
Coming downstairs in the morning means feeding the dog

Walking

Making KD dinner

Trying to catch a falling object (e.g. glass, plate, etc)

Trying to catch a falling object



S2

Learning to cook a new recipe

Not barking when someone is at the door means a treat

Driving for the first time

Riding a bike

Learning to Run

Making fancy dinner - new recipe

How we Process Change

I feel change emotionally using System 1. I adapt slowly.

Carbon-based life form

I logically evaluate change using System 2. I adapt quickly.

Silicon-based life form

Adopting new processes challenges people psychologically & sociologically

- Most people resist change because individually they have more to lose than gain …
  - New roles attack identity
  - New responsibilities threaten self-esteem & social status
- Keeping current practices is more conservative, but avoids shaking up the current social hierarchy.

How is the Kanban Method a different type of change management?

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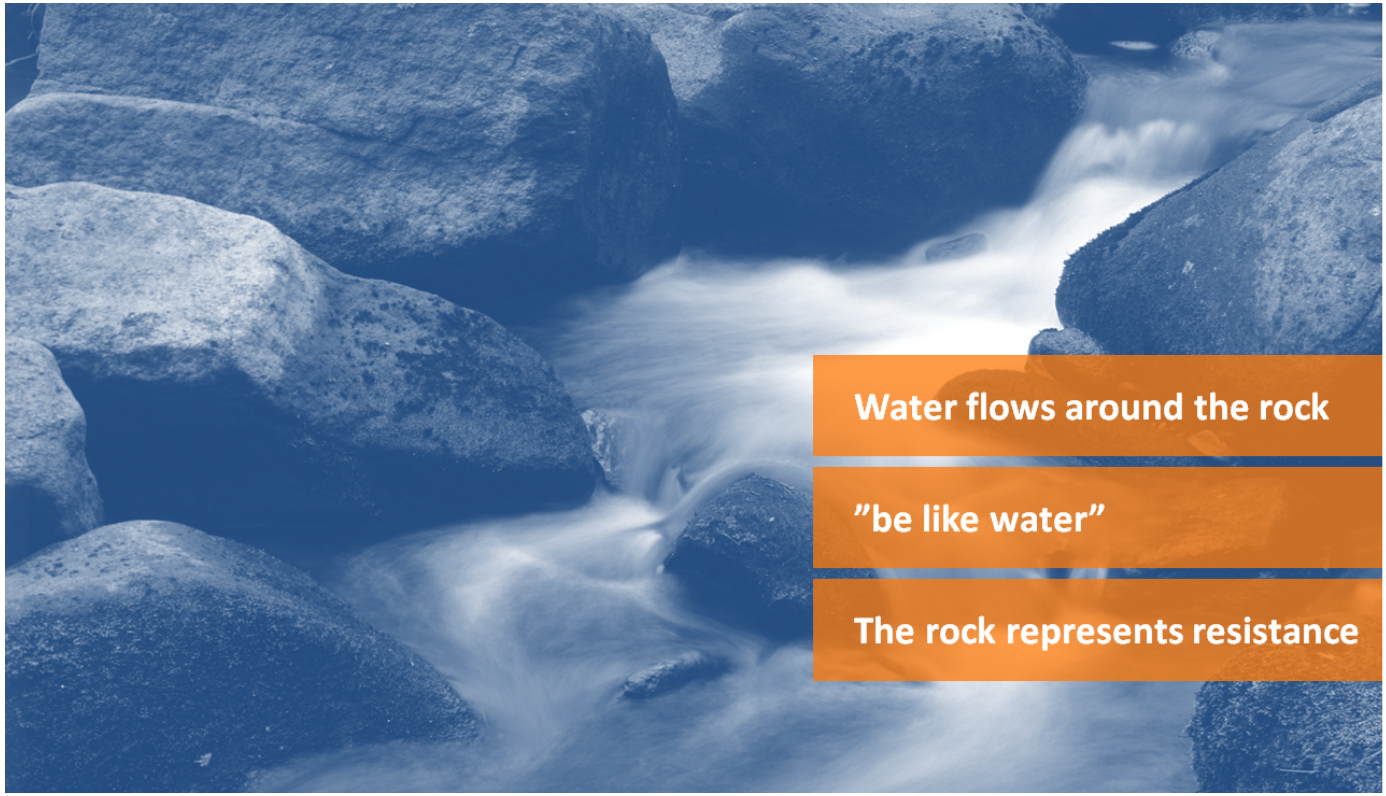
Water flows around the rock
”be like water”
The rock represents resistance

Exercise

Overcoming Resistance to WIP limit

Group 1

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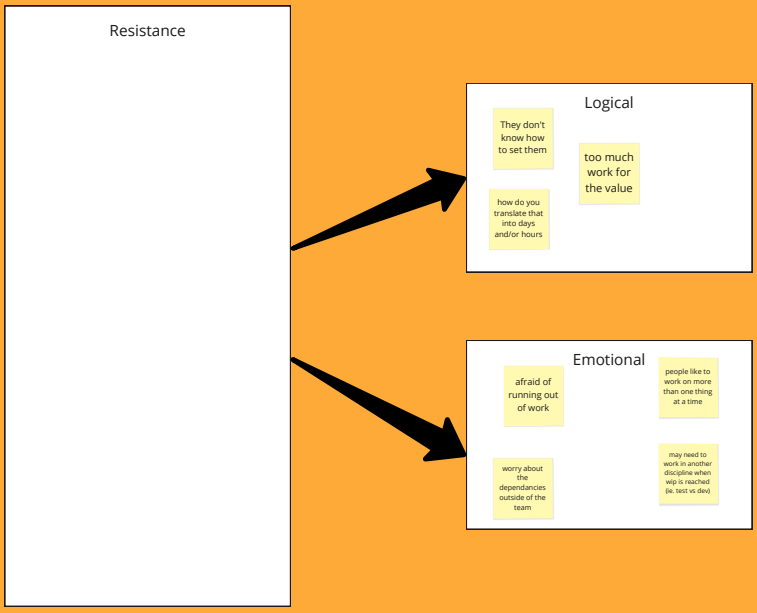

Exercise

Overcoming Resistance to WIP limit

Group 2

List reasons people might object to WIP limits. What are they afraid of?

- Write each fear on a sticky note
- Are the objections emotional or logical?

For each emotional resistance...

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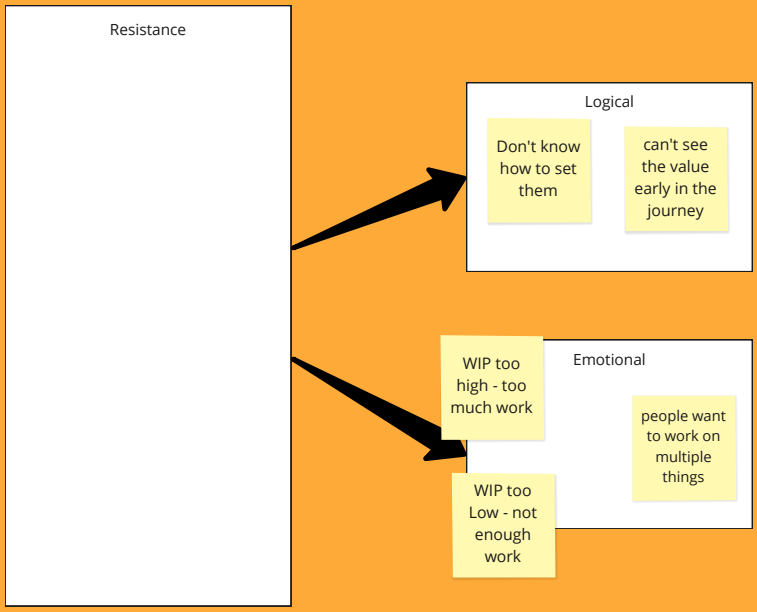

There are different types of Kanban
Patterns of Kanban Boards
Instructions: Consider the 4 questions to the right. Use stickies and place your answers on top of the appropriate board pattern.
1 - Have you seen patterns like this?
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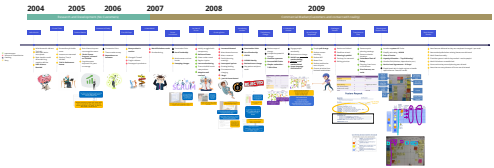
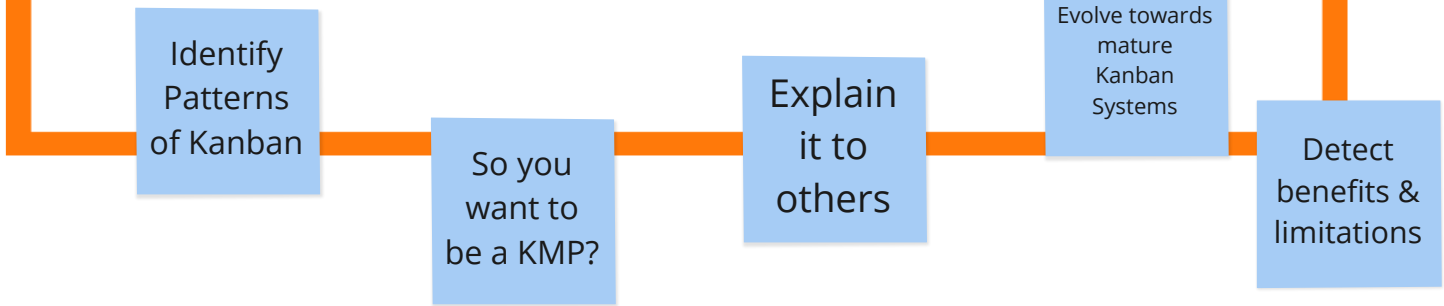
Good

Post Science was started by one of the world's most pre-eminent neuroscientists to apply new discoveries in brain plasticity
PositScience

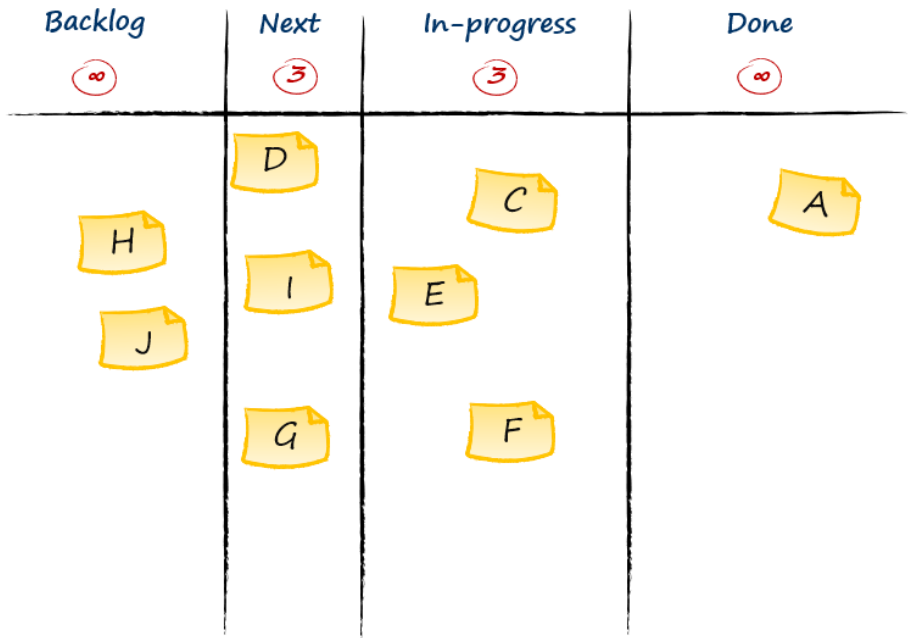

2004
2005
2006
2007
2008
2009

Post Science Case Study Review
Features
Bugs
Increase Throughput
Constraint Point

There are different types of Kanban!



Personal Kanban

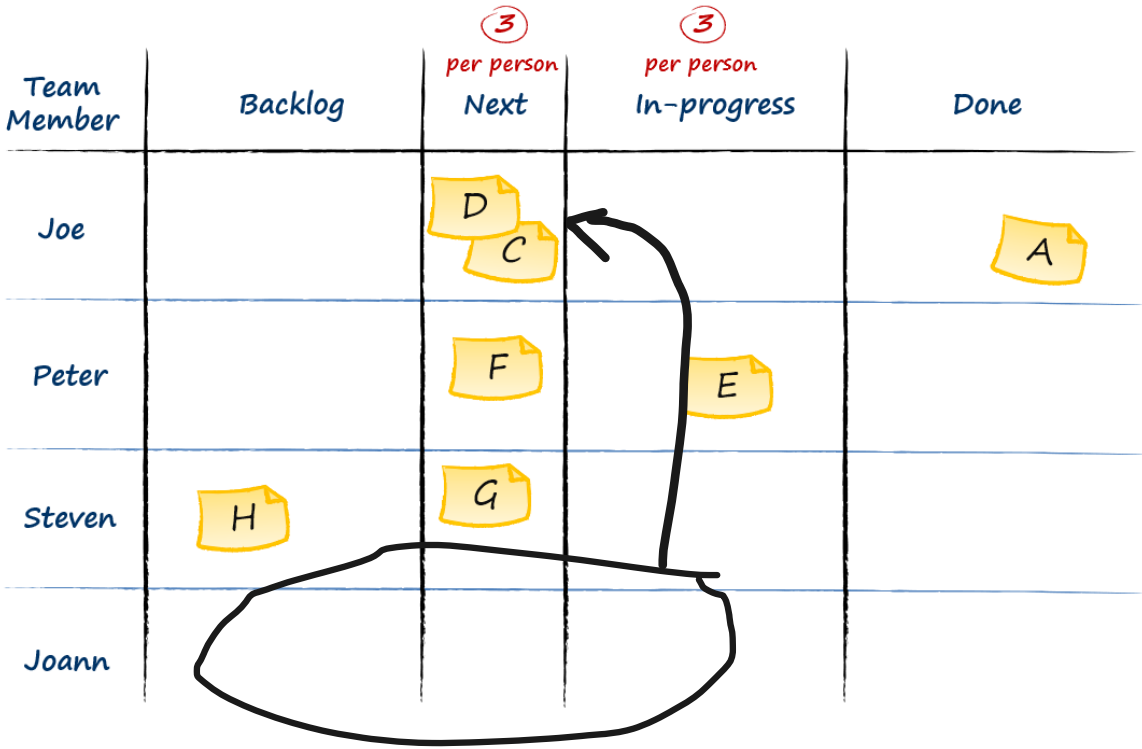


Locally focused

Customer? Service Workflow?

Visualize Individuals Work

Aggregated Personal Kanban

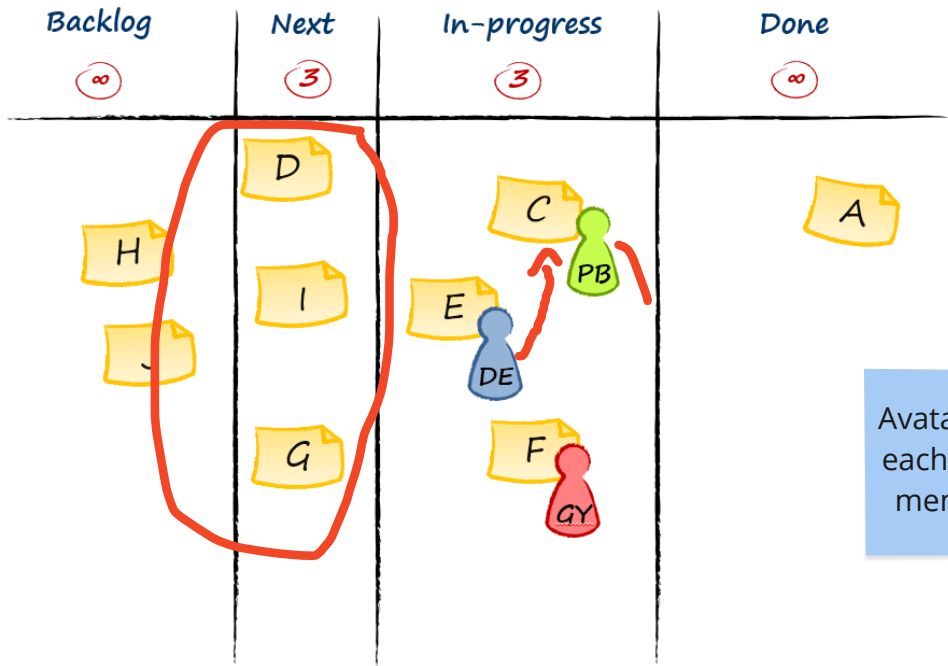


Multiple Individuals

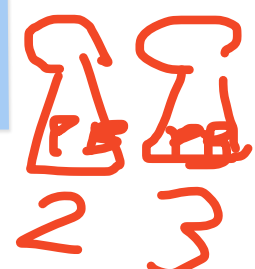
More focus on managing people than work &flow

Team Kanban

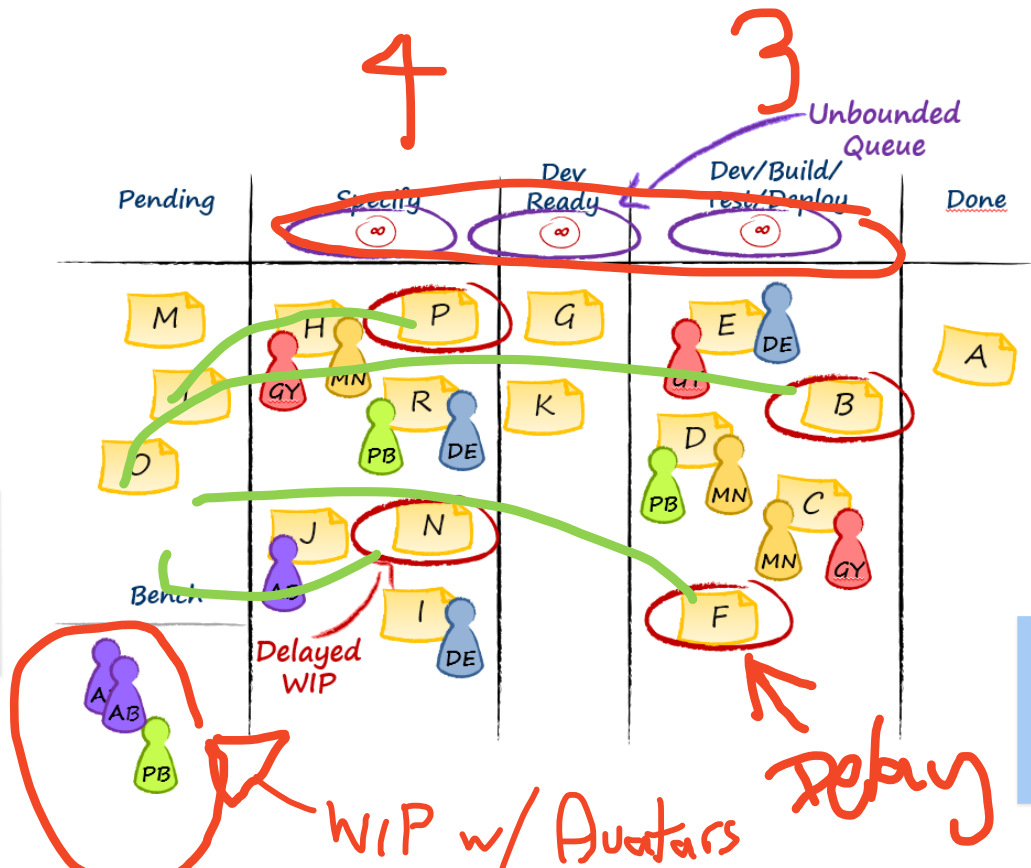
Single team focus



Avatars for each team member



Team Kanban with Per Person WIP Limit



Not just a single team

System is still overburdened

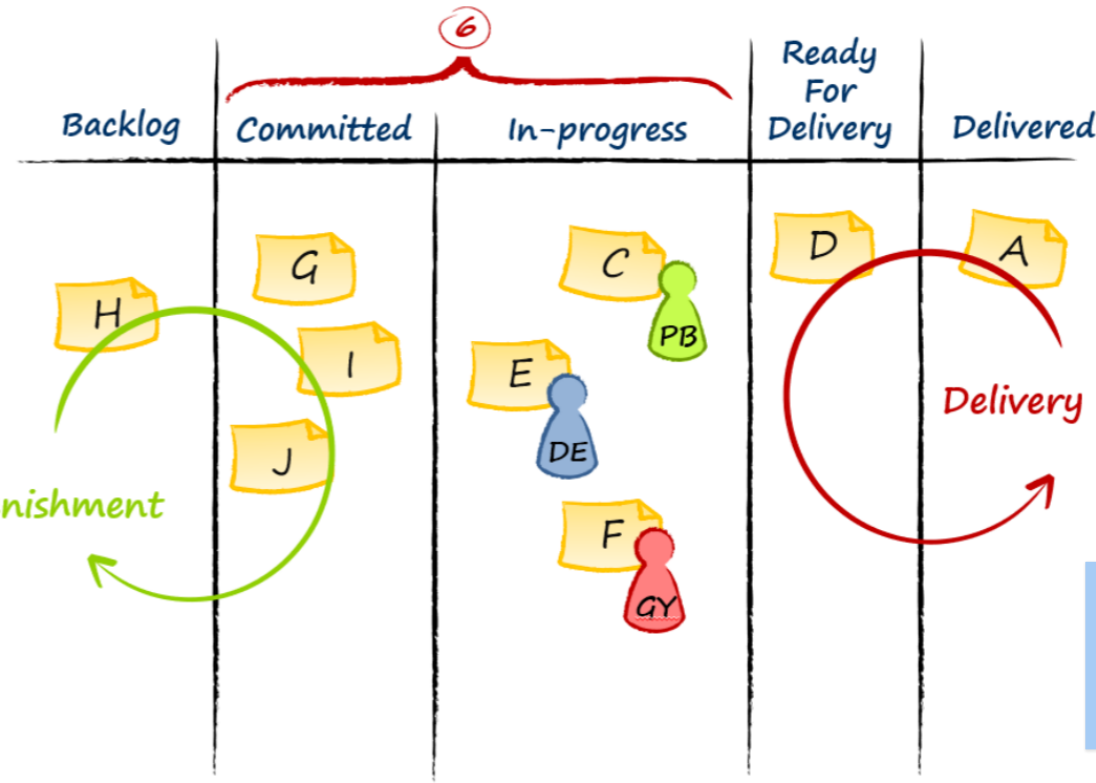
Signs of Service Delivery workflow

Is Service Delivery predictable now?

What would customer experience be like?

Decoupled Cadences & Combined WIP

Where is my workflow?



Distinct Replenishment cadence

Do your customers care about your timebox?

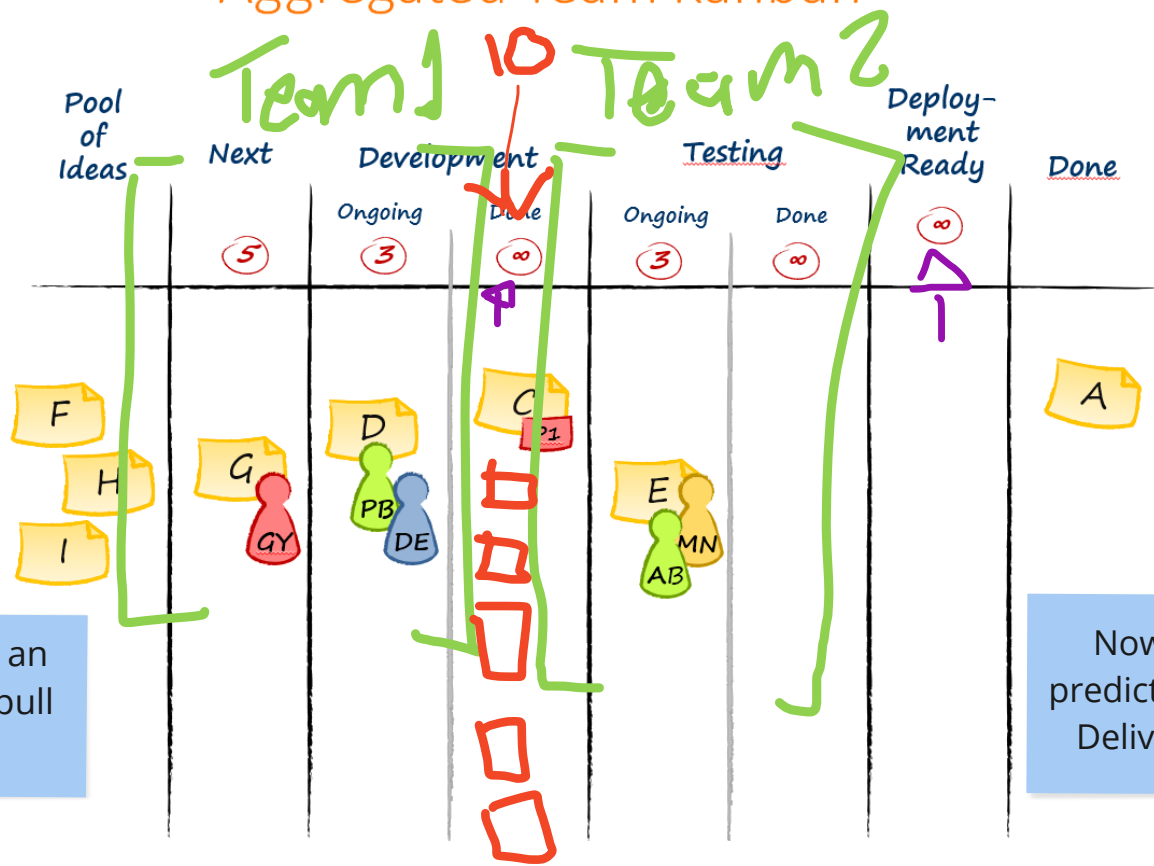
Often observed with Scrum teams

Distinct Delivery Cadence

Aggregated Team Kanban

Multiple teams

Glass ceiling



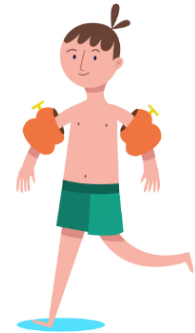
Emerging Service Delivery workflow

What if Dev is faster than Test?

Do we have an end-to-end pull system?

Now we have predictable Service Delivery - right?

Characteristics of these patterns



- Pre-cursors to full Kanban systems.
- Not service oriented Kanban systems.
- Typically these patterns address the initial concerns of “sustainability”
  - The visibility of the work and process
  - Controlling work in progress at the individual worker level, to reduce multi-tasking and over-burdening
  - Making the policies explicit in the current system
- We have covered 5 typical patterns

You're not done!

What are you leaving on the table? Stay tuned…

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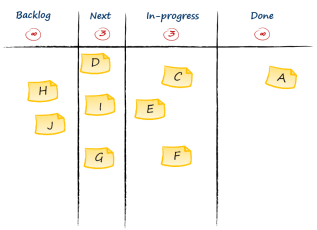
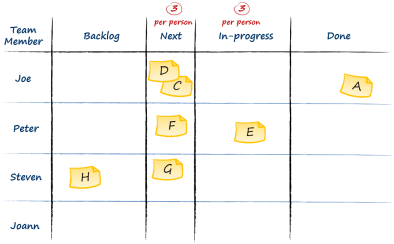


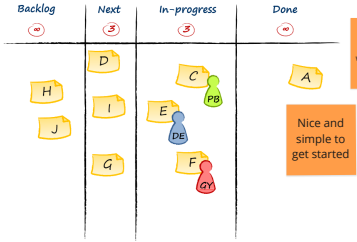
Good

Aggregated Personal Kanban



poor collaboration.

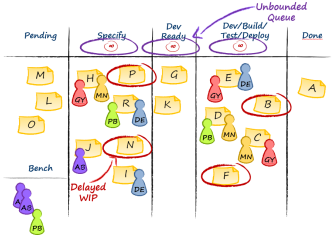
Team Kanban



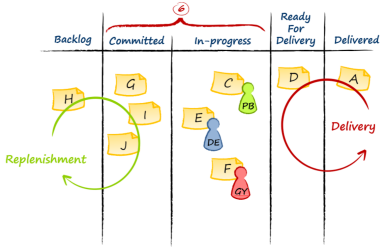
Provides visability into who is working on what

Nice and simple to get started

Team Kanban with Per Person WIP Limit



Decoupled Cadences & Combined WIP



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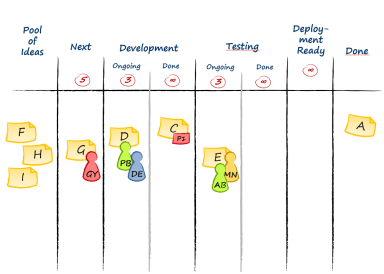


ability to identify efficiencies

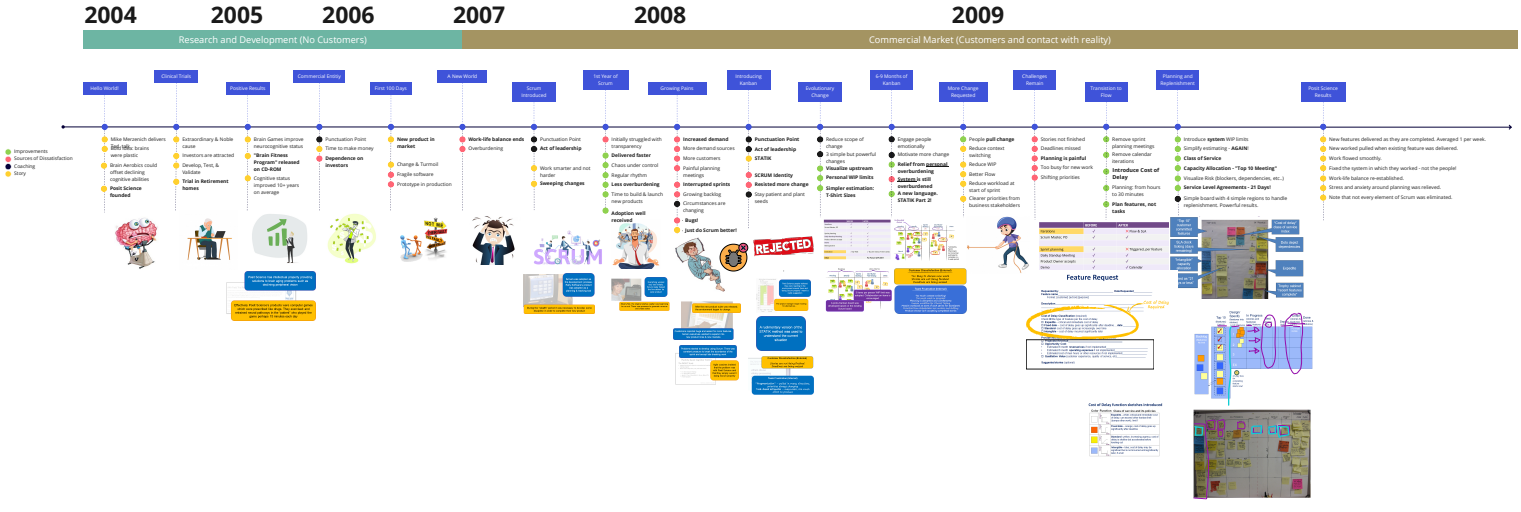
focus on collaboration

Synergies

Posit Science was started by one of the world's most pre-eminent neuroscientists to apply new discoveries in brain plasticity

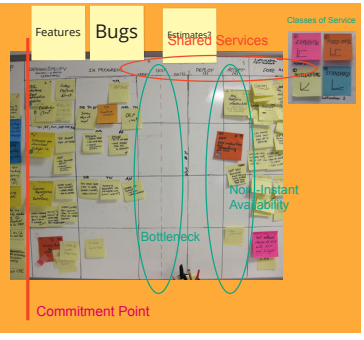
Dr. Michael Merzenich

PositScience®



Posit Science Case Study Review

- List work item types
- List classes of service
- Identify commitment points
  - Is it a symmetrical or asymmetrical commitment?
  - Is there a mechanism to reverse commitment?
- Identify any shared services
- Can you see any (potential) bottlenecks or non-instant availability problems?



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PositScience®

2004 2005 2006 2007 2008 2009

Research and Development (No Customers) | Commercial Market (Customers and contact with reality)

- Improvements
- Sources of Dissatisfaction
- Coaching
- Story

Hello World!

- Mike Merzenich delivers first talk
- Brain's like brains were plastic
- Brain Aerobics could offset declining cognitive abilities
- **Posit Science founded**

Clinical Trials

- Extraordinary & Noble cause
- Investors are attracted
- Develop, Test, & Validate
- **Trial in Retirement homes**

Positive Results

- Brain Games improve neurocognitive status
- **"Brain Fitness Program" released on CD-ROM**
- Cognitive status improved 10+ years on average

Fast Science, an elaborate property-protecting defense to keep spies and enemies out, like blocking and attack dogs.

Effectively their business products were computer games which most scientists find stupid. They invented 'skill validation' source attributes to the 'system' who played the game prototype. All the tasks were, like...

Commercial Entity

- Punctuation Point
- Time to make money
- **Dependence on investors**

First 100 Days

- **New product in market**
- Change & Turmoil
- Fragile software
- Prototype in production

A New World

- **Work-life balance ends**
- Overburdening

Scrum Introduced

- Punctuation Point
- **Act of leadership**
- Work smarter and not harder
- **Sweeping changes**

1st Year of Scrum

- Initially struggled with transparency
- **Delivered faster**
- Chaos under control
- Regular rhythm
- **Less overburdening**
- Time to build & launch new products
- **Adoption well received**

Growing Pains

- **Increased demand**
- More demand sources
- More customers
- Painful planning meetings
- **Interrupted sprints**
- Growing backlog
- Circumstances are changing
- **Bugs!**
- **Just do Scrum better!**

Introducing Kanban

- **Punctuation Point**
- **Act of leadership**
- **STATIK**
- **SCRUM Identity**
- **Resisted more change**
- Stay patient and plant seeds

Evolutionary Change

- Reduce scope of change
- 1 simple but powerful changes
- **Visualize upstream**
- **Personal WIP limits**
- **Simpler estimation: T-Shirt Sizes**

6-9 Months of Kanban

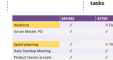
- Engage people emotionally
- Motivate more change
- **Relief from personal, overburdening**
- **System is still overburdened**
- **A new language. STATIK Part 2!**

More Change Requested

- **People pull change**
- Reduce context switching
- Reduce WIP
- Better Flow
- Reduce workload at start of sprint
- Clearer priorities from business stakeholders

Challenges Remain

- Stories not finished
- Deadlines missed
- **Planning is painful**
- Too busy for new work
- Shifting priorities



Transition to Flow

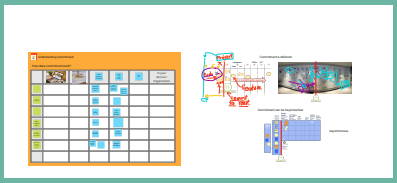
- Remove sprint planning meetings
- Remove calendar iterations
- **Introduce Cost of Delay**
- Planning: from hours to 20 minutes
- **Plan features, not tasks**

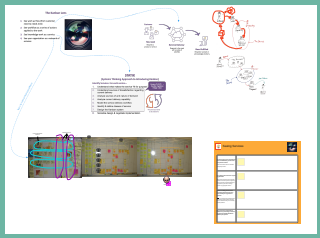
Planning and Replenishment

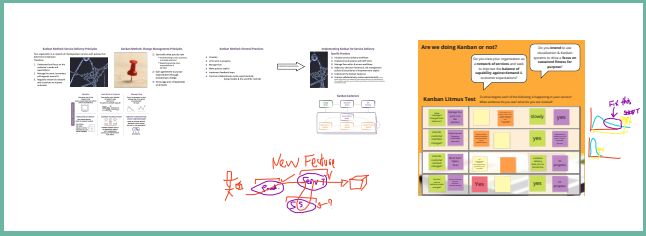
- Introduce **system** WIP limits
- Simplify estimating - **AGAIN!**
- **Class of Service**
- **Capacity Allocation - "Top 10 Meeting"**
- Visualize Risk (blockers, dependencies, etc.)
- **Service Level Agreements - 21 Days!**
- Simple board with 4 simple regions to handle replenishment. Powerful results.

Post Science Results

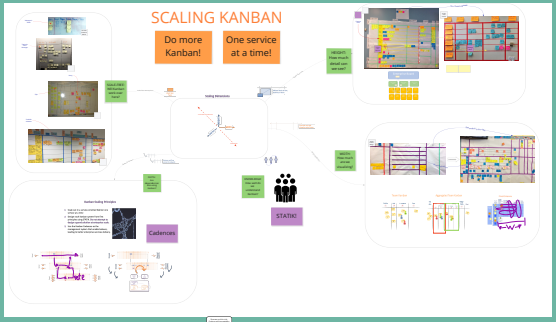
- New features delivered as they are completed. Averaged 1 per week.
- New worked pulled when existing feature was delivered.
- Work flowed smoothly.
- Fixed the system in which they worked - not the people!
- Work-life balance re-established.
- Stress and anxiety around planning was relieved.
- Note that not every element of Scrum was eliminated.


Commitments delivered
Commitment over the day/timeline
Days/Milestones


The Kanban story
Delivery Kanban
Service Delivery Review
Operations Review
Risk Review
Strategy Review
Standing Agendas


Kanban Method Service Delivery Principles
Kanban Method: Change Management Principles
Kanban Method: General Practices
Implementing Kanban for Service Delivery
Kanban Cadences
New Feature
Start
Done

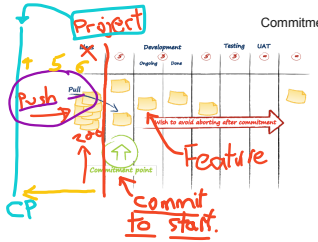
Are we doing Kanban or not?
Do you intend to use visualization & Kanban systems to drive a focus on improving the flow of work and delivery?
Do you know your organization as well as your customers' needs?
Kanban Litmus Test
How confident are you that all of the following is happening in your service?
What evidence do you see? what do you see instead?
Yes
slowly
yes
yes
yes
yes
Fit for purpose


SCALING KANBAN
Do more Kanban!
One service at a time!
Cadences
STATIC

Understanding Commitment

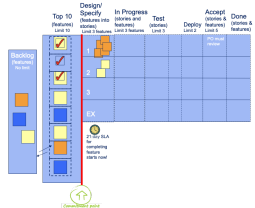
How does commitment work?

			work request- estimate	e-sign room intake process	??	In your Service / Organization
Who makes commitments? To whom? Who else is involved?			estimate requester team	e-sign commits to 3-short size estimate. Business agrees to proceed		
How frequently?			once- beginning of request	once for each commitment		
What's the cost of making commitments? (project? feature? work?)			any	user story / feature		
Who commits first?			requester	e-sig room commits to estimate. business commits to proceeding		
Is it reversible? for whom?			both	yes by business		
What's the cost of Teaching out?			incurred cost to date, reputational cost	spend to date		



Commitment is deferred

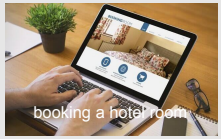
Commitment can be Asymmetrical



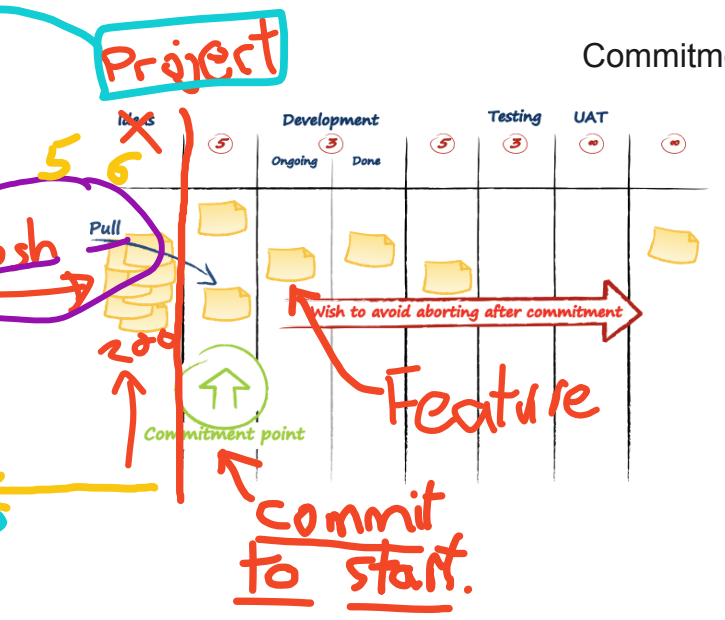
Asynchronous

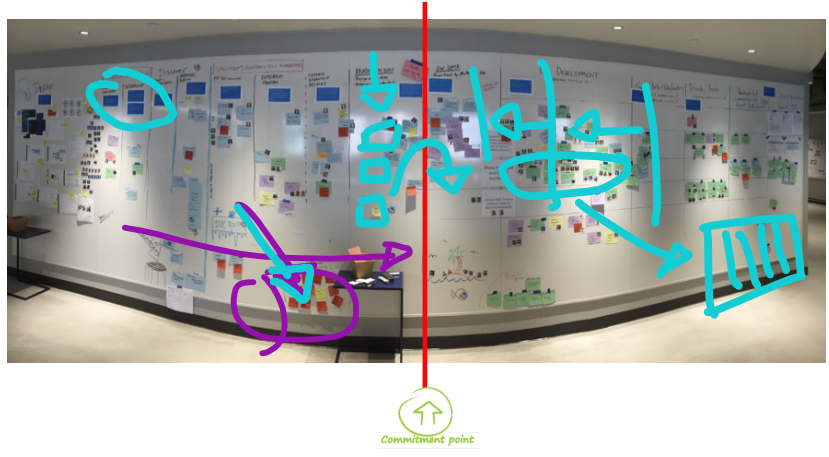
Understanding Commitment

How does commitment work?

	 booking a hotel room	marriage	work request-estimate	e-sign room intake process	??	In your Service / Organization
Who makes commitments? To whom? Who else is involved?			estimate requester, team	e-sign commits to t-shirt size estimate. Business agrees to proceed		
How frequently?			once-beginning of request	once for each committment		
What's the "unit of commitment"? (project? feature? task?)			any	user story / feature		
Who commits first?			requester	e-sig room commits to estimate. business commits to proceeding		
Is it reversible? for whom?			both	yes by buisness		
What's the cost of "backing out"?			incurred cost to date; reputational cost	spend to date		

Commitment is deferred





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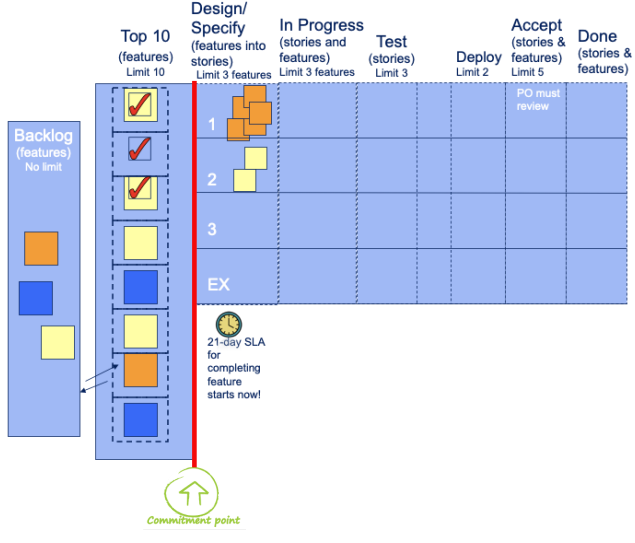
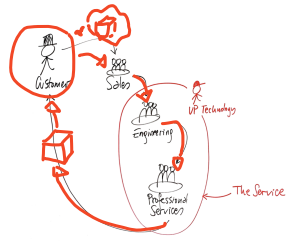


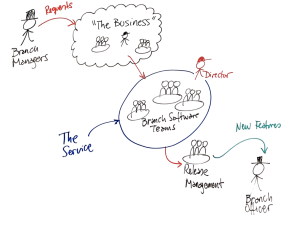
Asynchronous

The Kanban Lens

1) See work as flow (from customer need to needs met)
2) See workflow as a series of actions applied to the work
3) See knowledge work as a service
4) See your organization as a network of services

Choose to see like this





For each service

Learn to see services everywhere

STATIK

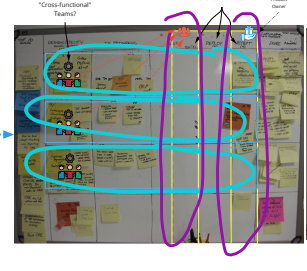
(Systems Thinking Approach to Introducing Kanban)

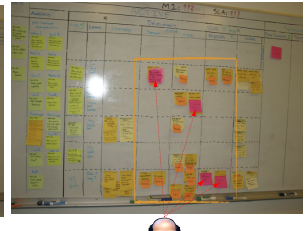
Identify Services. For each service...

1. Understand what makes the service "fit for purpose"
2. Understand sources of dissatisfaction regarding current delivery
3. Analyze sources of and nature of demand
4. Analyze current delivery capability
5. Model the service delivery workflow
6. Identify & define classes of service
7. Design the Kanban system
8. Socialize design & negotiate implementation

Scope of KMP I – Kanban Systems Design class

This process tends to be iterative





Exercise

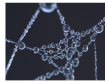
Seeing Services

List the services your customers (or other stakeholders) perceive that you provide to them *Does the customer have a consistent interface for them?*	
List existing shared services in your organization *Why are they shared: Scarce specialist resource? Common function? Efficiency due to variation in demand? Efficiency of operation, personnel sourcing? Historic or geographic reason?*	
Think of existing functions not currently perceived as services that actually are organized as services *Hint: If you keep teams, departments or functional groups together and bring work to them then they are most likely service providers*	
For each service, what level of Kanban do you envisage: Personal; Proto-/Team Kanban; Workflow Kanban pull system?	

Kanban Method: Service Delivery Principles

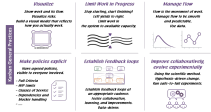
Your organization is a network of interdependent services with policies that determine its behavior.
Therefore:

1. Understand and focus on the customer's needs and expectations.
2. Manage the work; let workers self-organize around it.
3. Regularly review the network and its policies to improve outcomes.



Kanban Method: Change Management Principles

1) Start with what you do now
   - Understanding current processes, as-actually-practiced
   - Respecting existing roles, responsibilities & job titles
2) Gain agreement to pursue improvement through evolutionary change
3) Encourage acts of leadership at all levels



Kanban Method: General Practices

- Visualize
- Limit work-in-progress
- Manage flow
- Make policies explicit
- Implement feedback loops
- Improve collaboratively, evolve experimentally (using models & the scientific method)

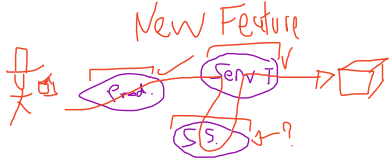
CONTEXTUALIZATION

Implementing Kanban for Service Delivery

Specific Practices

1) Visualize service delivery workflows
2) Implement pull systems with WIP limits
3) Manage flow within & across workflows
4) Make your decision framework, risk management policies & boundaries of empowerment explicit
5) Implement the Kanban Cadences
6) Improve collaboratively, evolve experimentally (using theory of theory metrics, and models) from measurements based upon an understanding of variation (common causes), sources of delay, queuing theory, interaction theory, & psychological safety)

Kanban Cadences



Are we doing Kanban or not?

Do you view your organization as a **network of services** and seek to improve the **balance of capability against demand** & customer expectations?

Do you **intend** to use visualization & Kanban systems to drive a **focus on sustained fitness for purpose**?

Kanban Litmus Test

To what degree each of the following is happening in your service? What evidence do you see? what do you see instead?

Have managers changed their behavior?	Manage the work, not the workers			slowly	yes
Has the customer interface changed?	Replenishment Discipline. Irrefutable demand?			yes	
Has the customer contract changed?	Work Item Types, SLAs			establish delivery date, but no formal SLA	In progress
Has the service delivery model changed?	Classes of Service, Capacity allocation, demand shaping	Yes		yes	in progress

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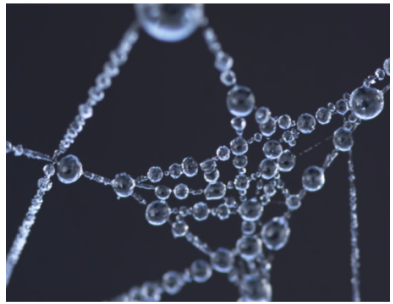

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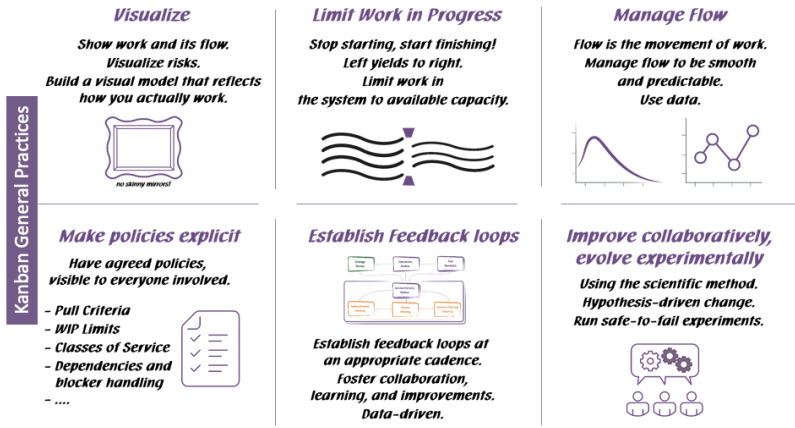

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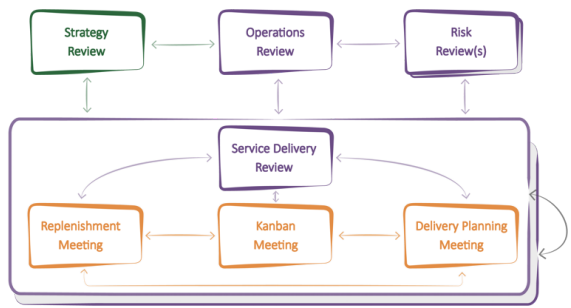
Kanban Cadences



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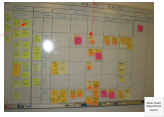
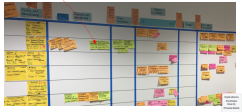
Have managers changed their behavior?	Manage the work, not the workers		the Company is not KanBan. Big Shift. Slow. - Leaders - AVP/VP Yes -Resource managers slower - AOS - Struggling - EPMO - NO	slowly	yes
Has the customer interface changed?	Replenishment Discipline. Irrefutable demand?	Not sure if the business partners were consulted. Yes at replenishment		yes	replenishment sometimes out of team's control. Irrefutable demand.
Has the customer contract changed?	Work Item Types, SLAs	Yes How the work comes in. Some things have to get done e.g. Tax Less Dates		establish delivery date, but no formal SLA	In progress
Has the service delivery model changed?	Classes of Service, Capacity Allocation, demand shaping	Yes		yes	in progress

SCALING KANBAN

Do more Kanban!

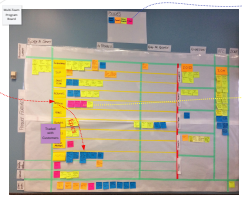
One service at a time!

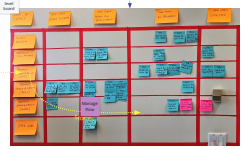




SCALE-FREE: Will Kanban work over here?

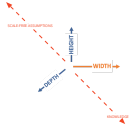
HEIGHT: How much detail can we see?



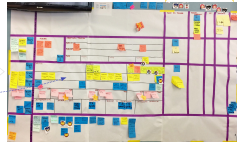


Enterprise Board

Scaling Dimensions



WIDTH: How much are we visualizing?



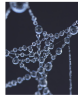
DEPTH: Are dependencies also using Kanban?

KNOWLEDGE: How well do we understand Kanban?

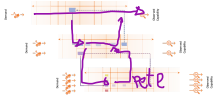
STATIK!

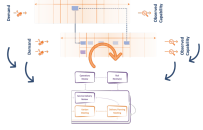
Kanban Scaling Principles

1) Scale out in a service-oriented fashion one service at a time
2) Design each Kanban system from first principles using STATIK. Do not attempt to design a grand solution at enterprise scale.
3) Use the Kanban Cadences as the management system that enable balance, leading to better enterprise services delivery.

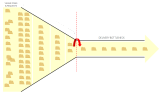


Cadences





Upstream acquires options.
Downstream (delivery) converts options.



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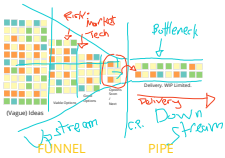

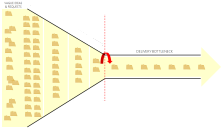

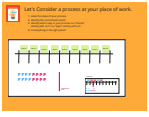

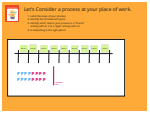

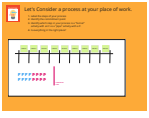

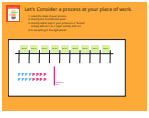

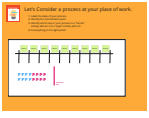

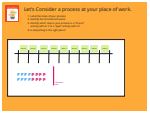

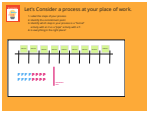

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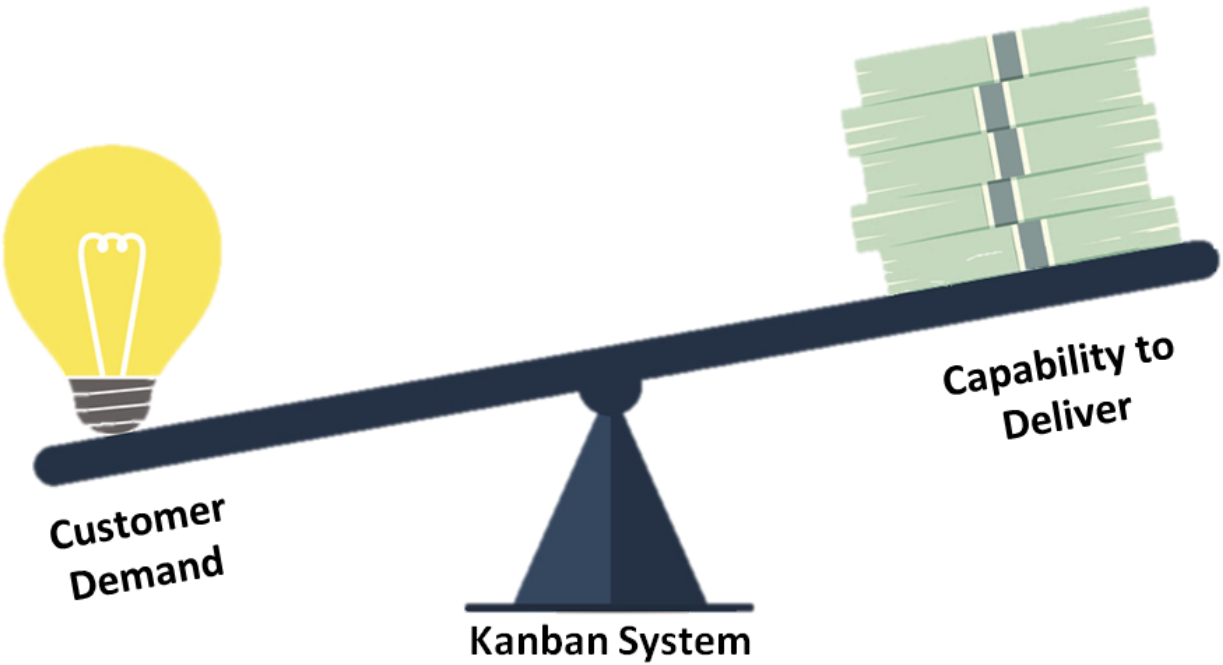
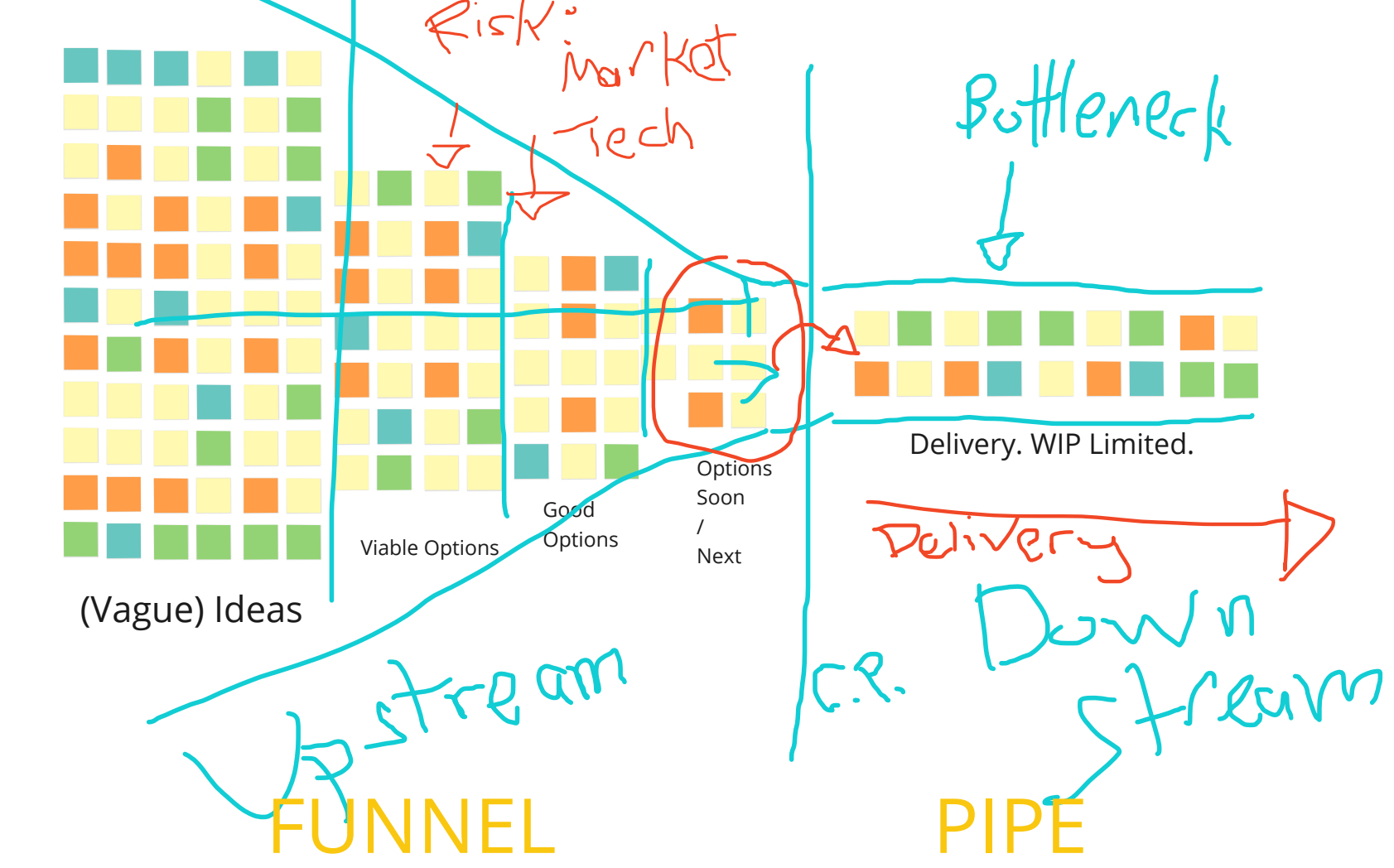
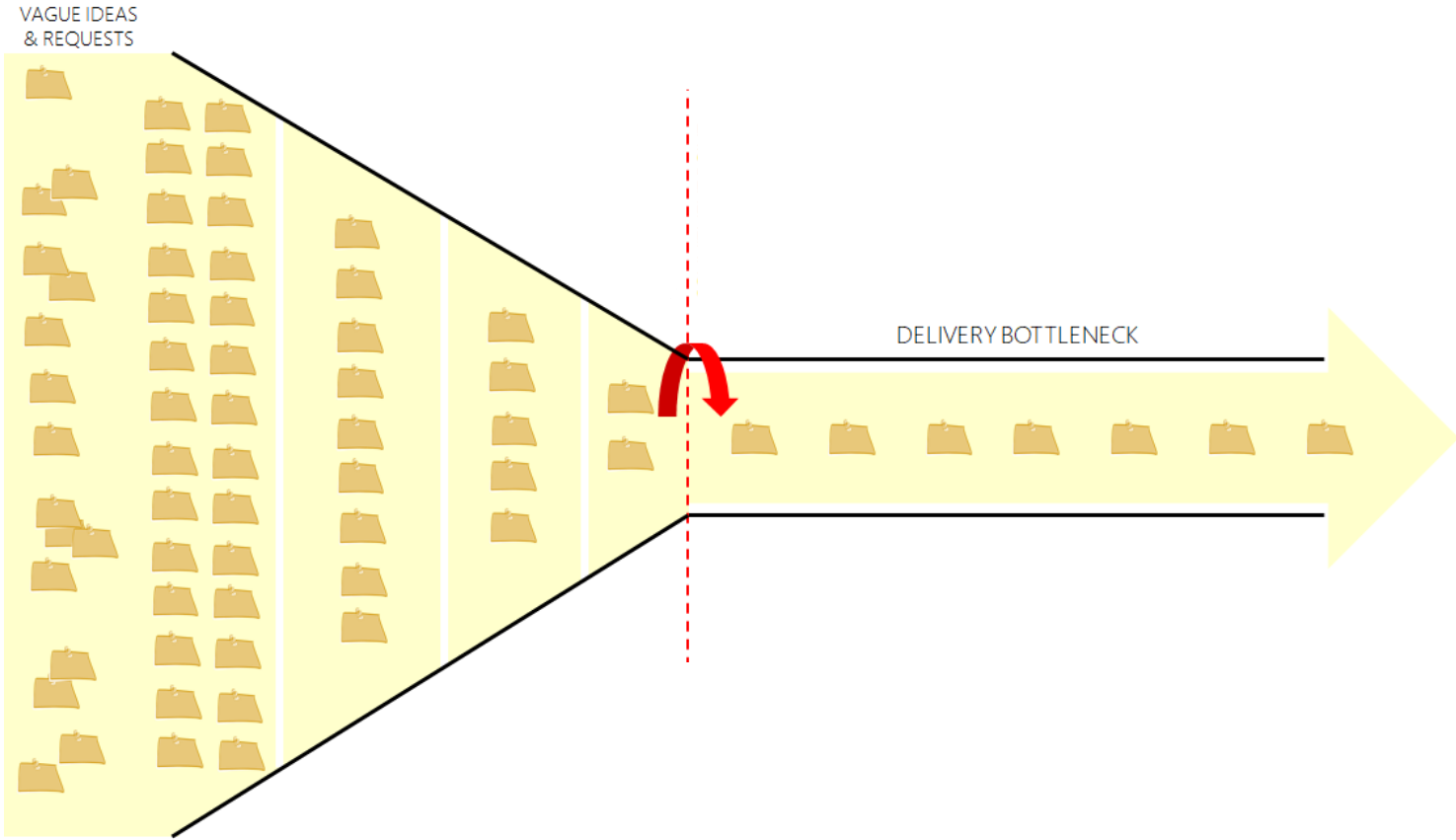
Downstream (delivery) converts options.

Kanban Balances Demand and Capability

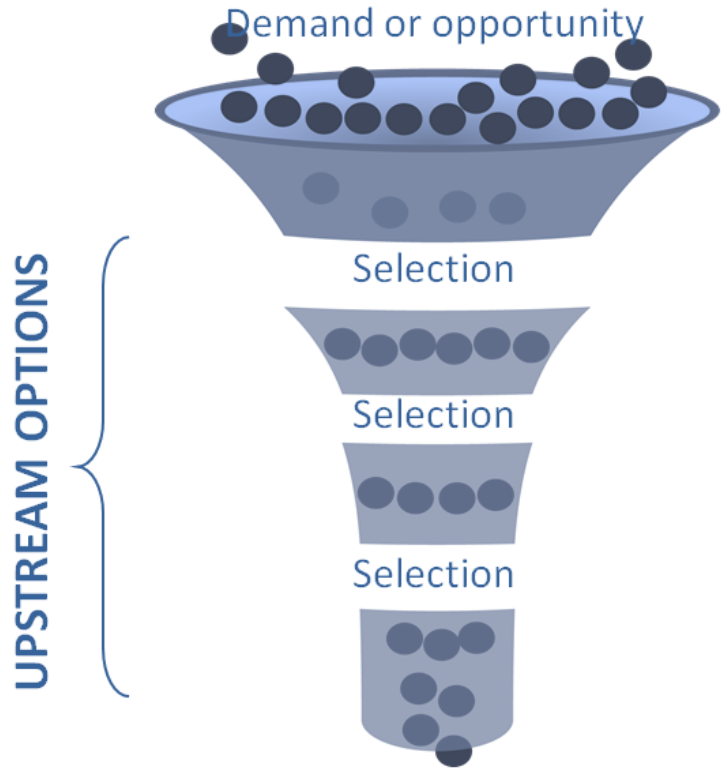



Risk:
Market
Tech
Bottleneck
(Vague) Ideas
Viable Options
Good Options
Options Soon / Next
Delivery. WIP Limited.
Delivery
Upstream
C.R.
Down Stream
FUNNEL
PIPE


VAGUE IDEAS
& REQUESTS
DELIVERY BOTTLENECK

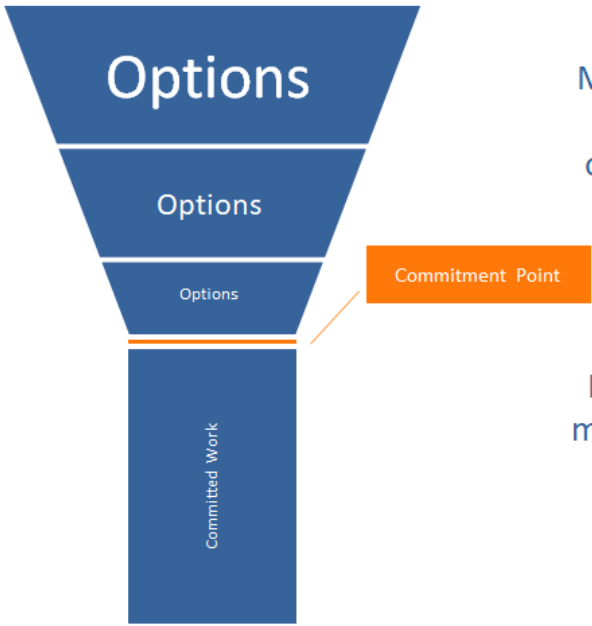
The Upstream Challenge

- Unclear demand or opportunity that does not present itself in a regular flow
- Demand comes in various shapes, sizes, forms
- Decision making in each of the selection stages causes delay
- Friction with the delivery process of committed work that is best organized around an even and predictable flow



Source: Upstream Kanban Condensed, Patrick Steyaert

Upstream vs. Delivery Kanban



Min & Max limits to ensure sufficient options are always available

Max. WIP limits to manage flow for fast and predictable delivery

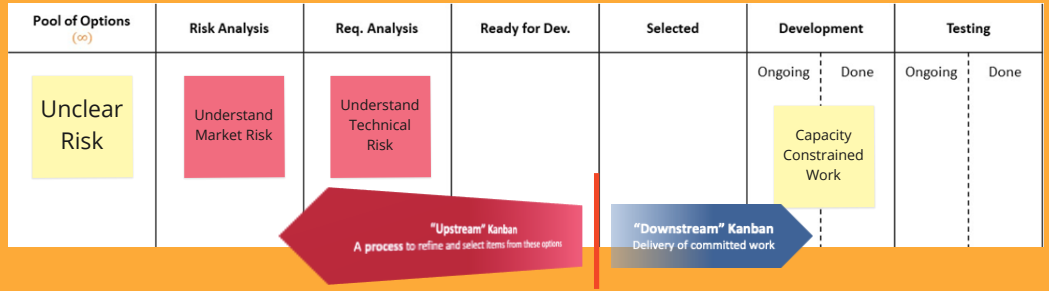
- Upstream
  - Money Spent acquiring options
  - High discard rates
  - Non-linear process
- Delivery
  - Money spent executing options, generating customer value
  - Little to no discarding
  - Linear flow of work

Exercise

Where is the Upstream and Delivery Kanban demarcation point?

Get things discarded.

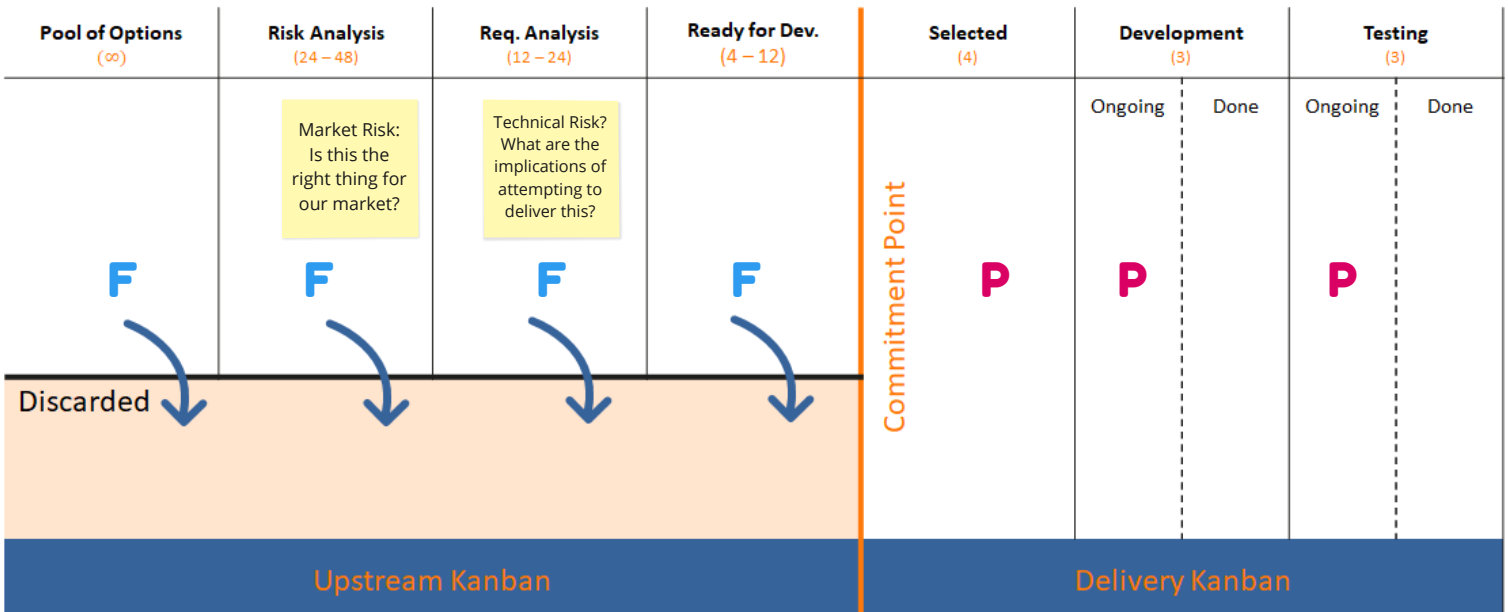
Getting things done.



Upstream Kanban Prepares Options

F = Funnel

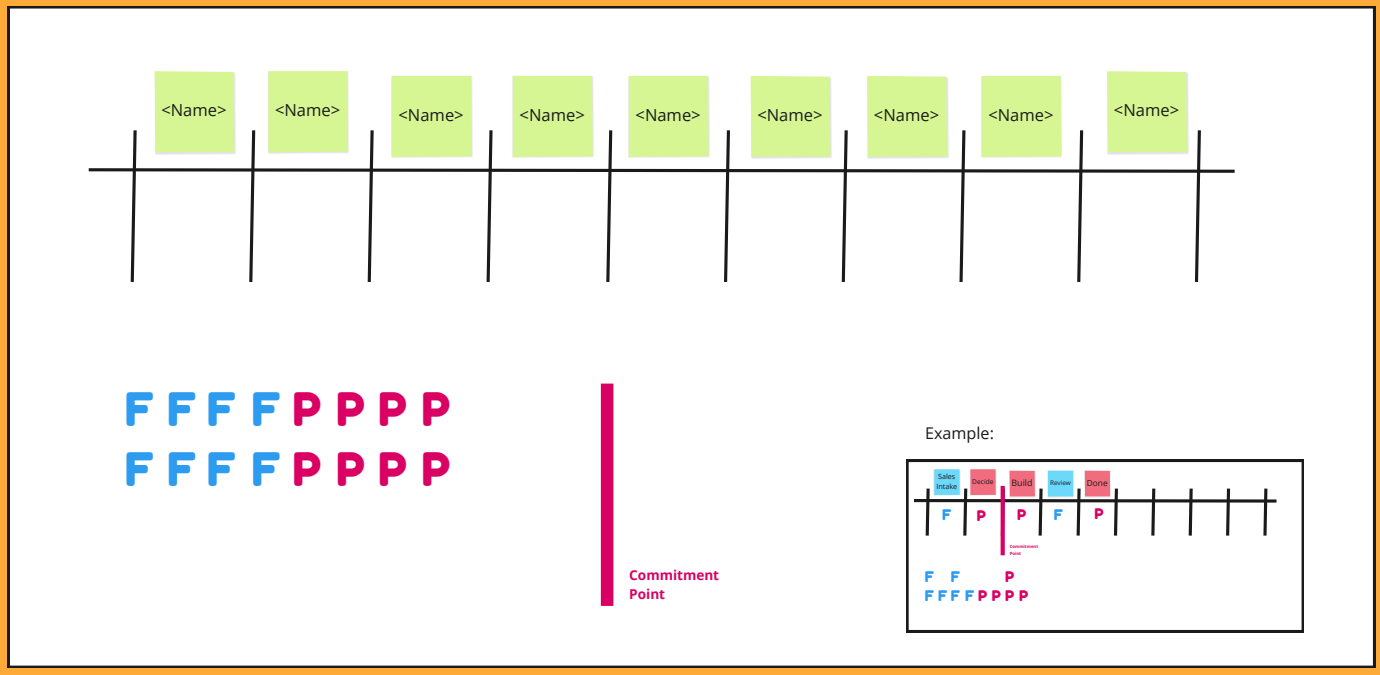
P = Pipe



Exercise

Let's Consider a process at your place of work.

1. Label the steps of your process
2. Identify the commitment point
3. Identify which step in your process is a "funnel" activity with an F vs a "pipe" activity with a P.
4. Is everything in the right place?



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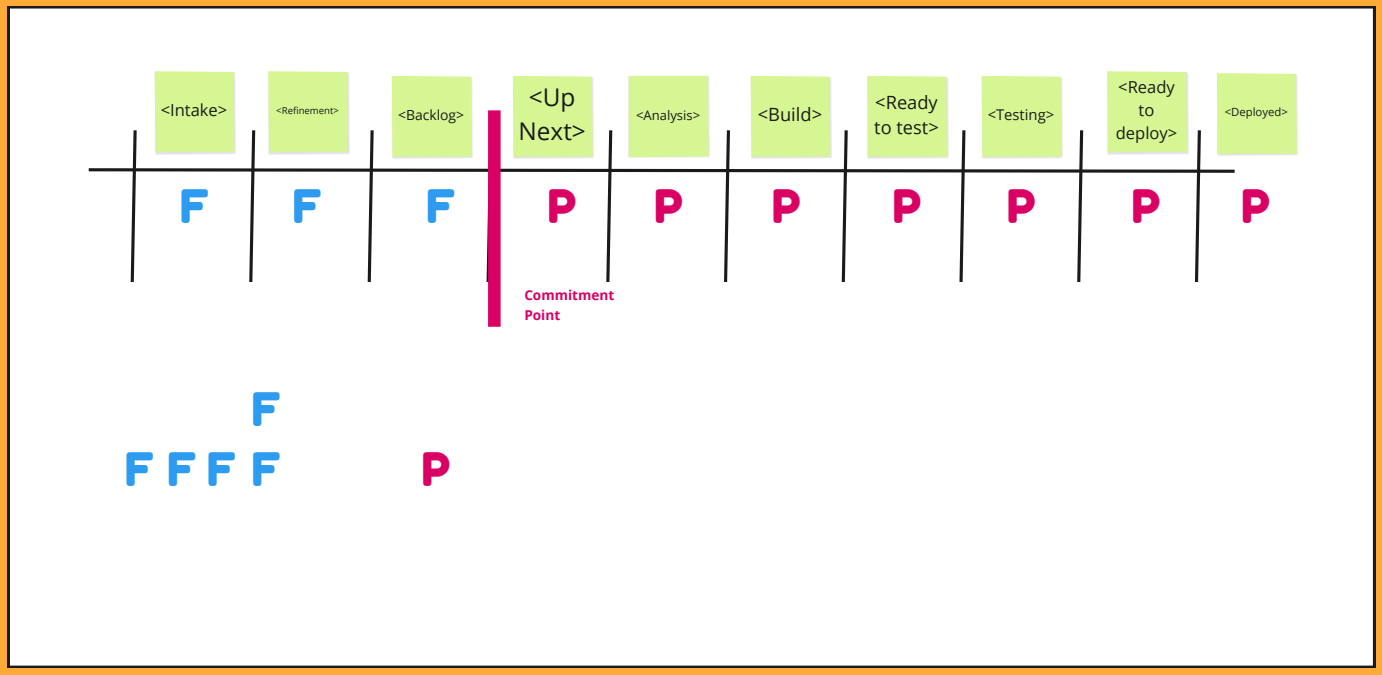
Room 1



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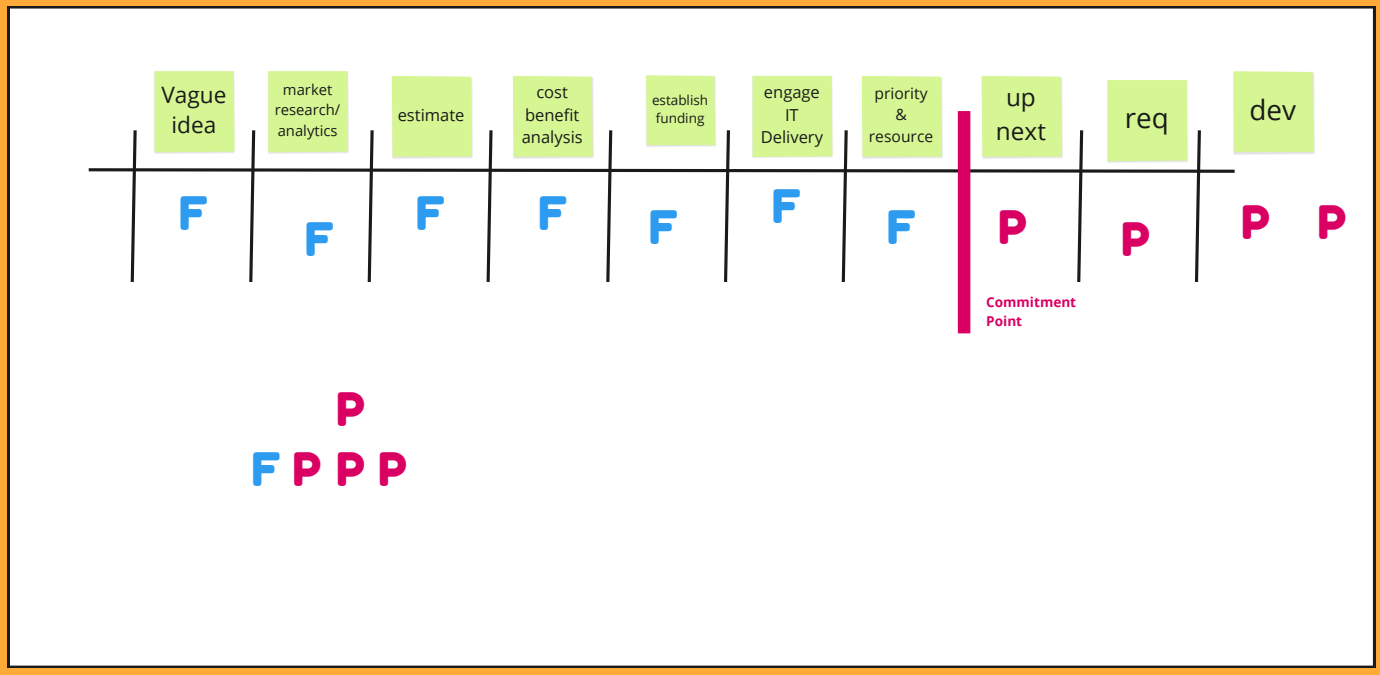
Room 2



Exercise

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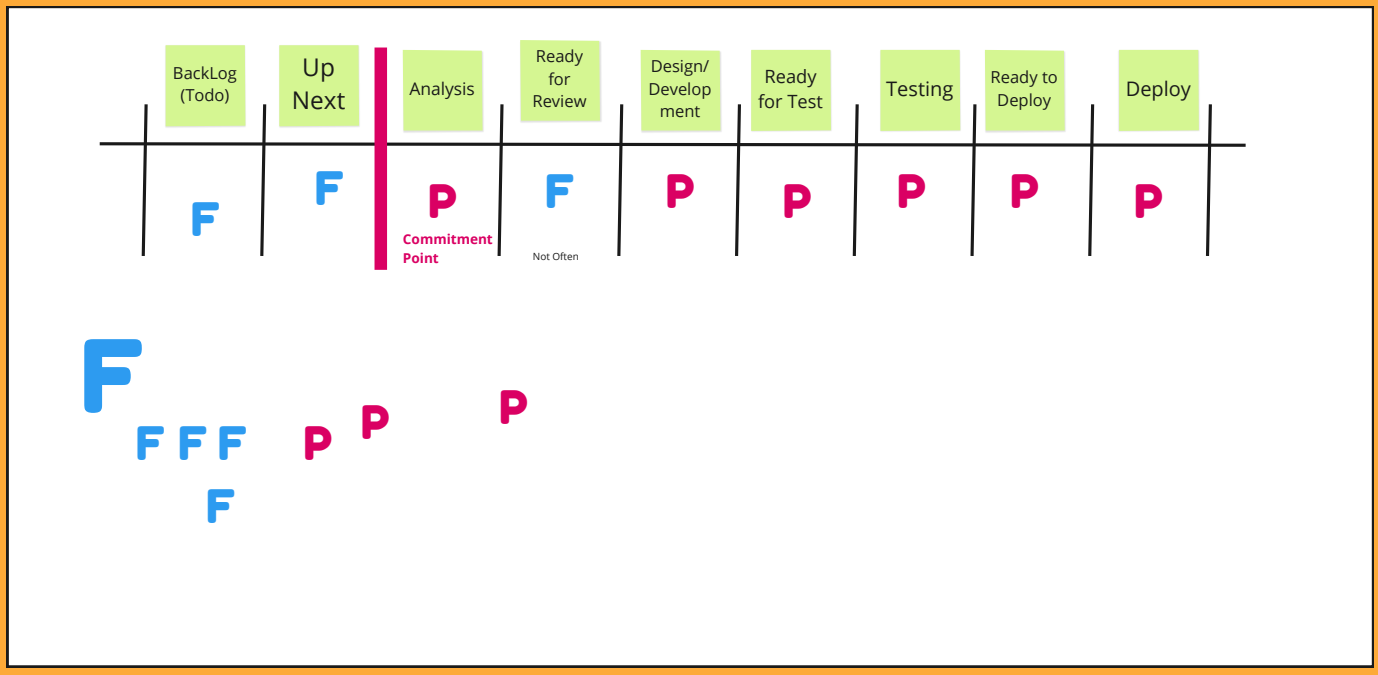
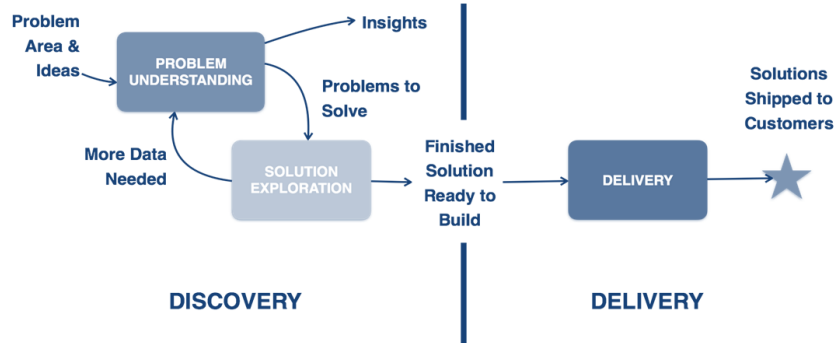
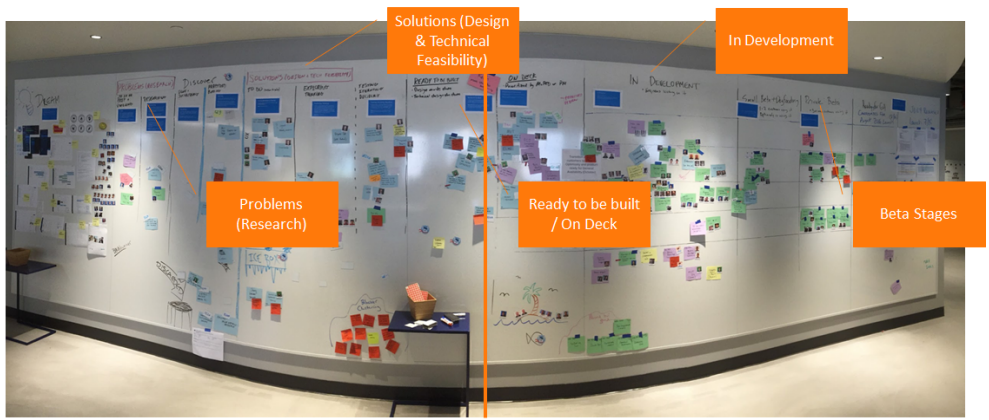
Room 3

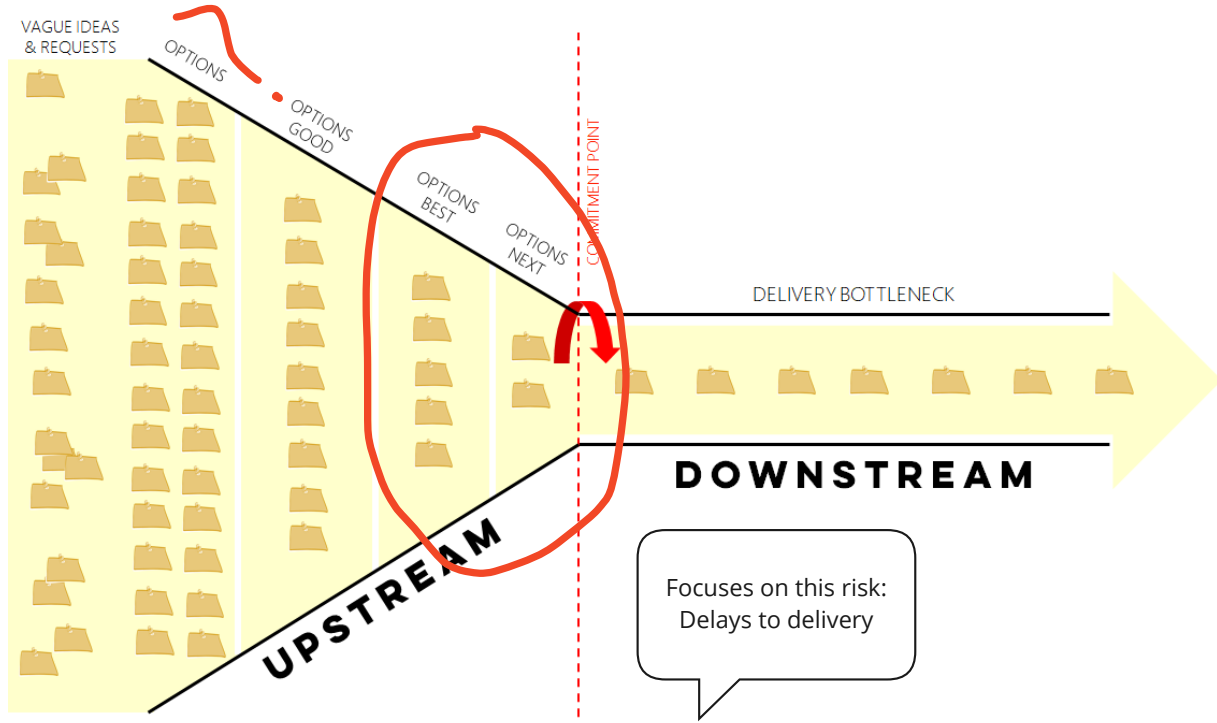




Optimizely's End-to-End Board



Kanban Roles are Emerging



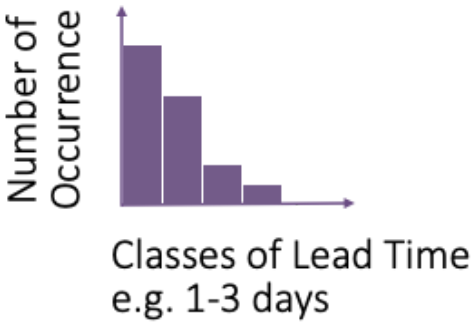
Service Request Manager (SRM)

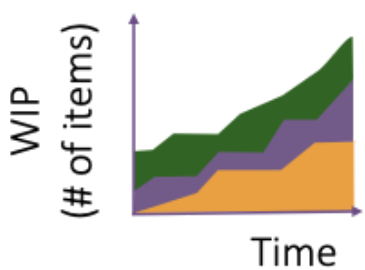
- Manages flow of options

Service Delivery Manager (SDM)

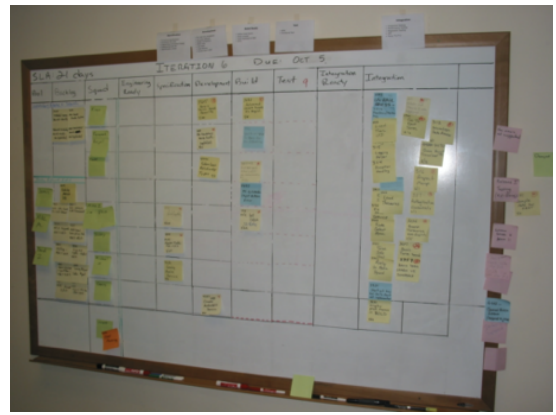
- Manage flow of committed work

Metrics

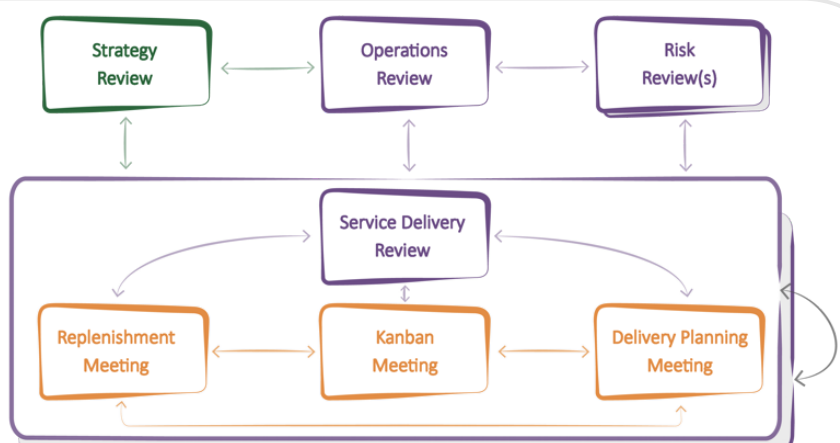


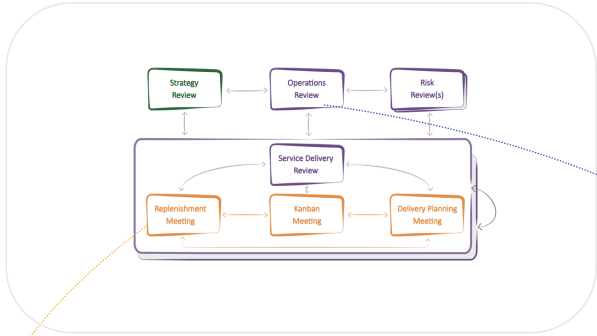


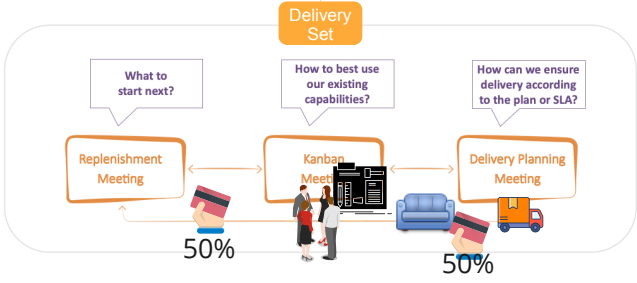
Boards

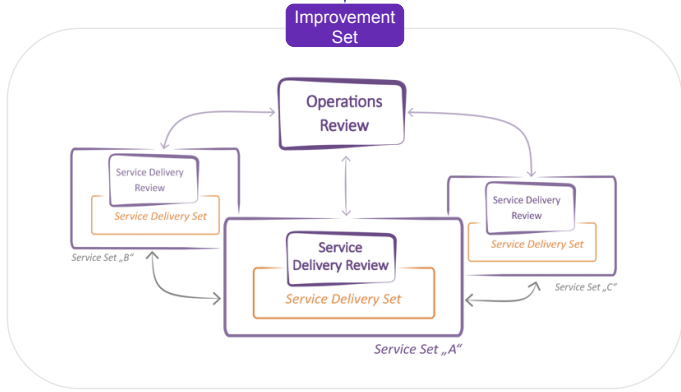


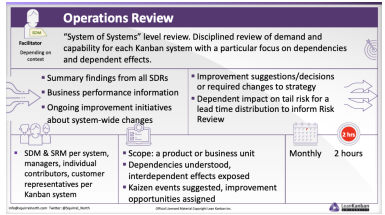
Cadences

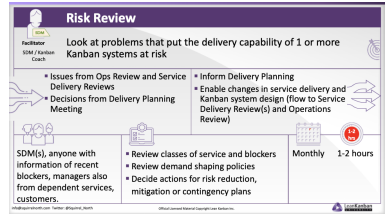


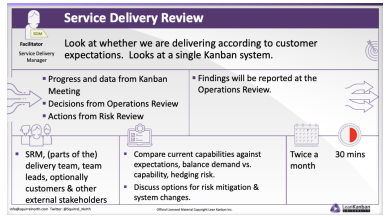

Strategy Review
Operations Review
Risk Review(s)
Service Delivery Review
Replenishment Meeting
Kanban Meeting
Delivery Planning Meeting

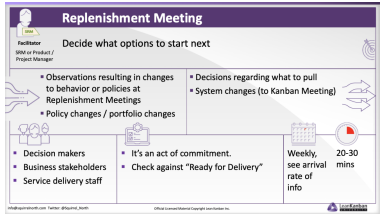

Delivery Set
What to start next?
How to best use our existing capabilities?
How can we ensure delivery according to the plan or SLA?
Replenishment Meeting
Kanban Meeting
Delivery Planning Meeting
50%
50%

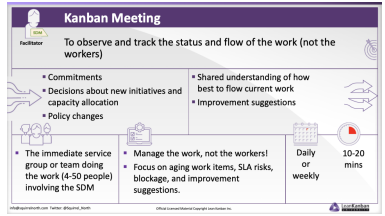

Improvement Set
Operations Review
Service Delivery Review
Service Delivery Set
Service Set „B"
Service Delivery Review
Service Delivery Set
Service Set „C"
Service Delivery Review
Service Delivery Set
Service Set „A"

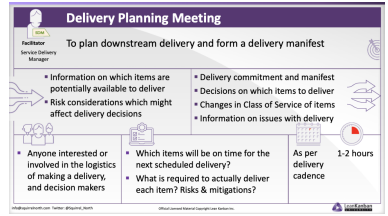

Operations Review
Facilitator
Depending on context
"System of Systems" level review. Disciplined review of demand and capability for each Kanban system with a particular focus on dependencies and dependent effects.
Summary findings from all SDRs
Business performance information
Ongoing improvement initiatives about system-wide changes
Improvement suggestions/decisions or required changes to strategy
Dependent impact on tail risk for a lead time distribution to inform Risk Review
SDM & SRM per system, managers, individual contributors, customer representatives per Kanban system
Scope: a product or business unit
Dependencies understood, interdependent effects exposed
Kaizen events suggested, improvement opportunities assigned
Monthly
2 hours


Risk Review
Facilitator
SDM / Kanban Coach
Look at problems that put the delivery capability of 1 or more Kanban systems at risk
Issues from Ops Review and Service Delivery Reviews
Decisions from Delivery Planning Meeting
Inform Delivery Planning
Enable changes in service delivery and Kanban system design (flow to Service Delivery Review(s) and Operations Review)
SDM(s), anyone with information of recent blockers, managers also from dependent services, customers.
Review classes of service and blockers
Review demand shaping policies
Decide actions for risk reduction, mitigation or contingency plans
Monthly
1-2 hours


Service Delivery Review
Facilitator
Service Delivery Manager
Look at whether we are delivering according to customer expectations. Looks at a single Kanban system.
Progress and data from Kanban Meeting
Decisions from Operations Review
Actions from Risk Review
Findings will be reported at the Operations Review.
SRM, (parts of the) delivery team, team leads, optionally customers & other external stakeholders
Compare current capabilities against expectations, balance demand vs. capability, hedging risk.
Discuss options for risk mitigation & system changes.
Twice a month
30 mins


Replenishment Meeting
Facilitator
SRM or Product / Project Manager
Decide what options to start next
Observations resulting in changes to behavior or policies at Replenishment Meetings
Policy changes / portfolio changes
Decisions regarding what to pull
System changes (to Kanban Meeting)
Decision makers
Business stakeholders
Service delivery staff
It's an act of commitment.
Check against "Ready for Delivery"
Weekly, see arrival rate of info
20-30 mins


Kanban Meeting
Facilitator
To observe and track the status and flow of the work (not the workers)
Commitments
Decisions about new initiatives and capacity allocation
Policy changes
Shared understanding of how best to flow current work
Improvement suggestions
The immediate service group or team doing the work (4-50 people) involving the SDM
Manage the work, not the workers!
Focus on aging work items, SLA risks, blockage, and improvement suggestions.
Daily or weekly
10-20 mins


Delivery Planning Meeting
Facilitator
Service Delivery Manager
To plan downstream delivery and form a delivery manifest
Information on which items are potentially available to deliver
Risk considerations which might affect delivery decisions
Delivery commitment and manifest
Decisions on which items to deliver
Changes in Class of Service of items
Information on issues with delivery
Anyone interested or involved in the logistics of making a delivery, and decision makers
Which items will be on time for the next scheduled delivery?
What is required to actually deliver each item? Risks & mitigations?
As per delivery cadence
1-2 hours

Operations Review

Facilitator

Depending on context

"System of Systems" level review. Disciplined review of demand and capability for each Kanban system with a particular focus on dependencies and dependent effects.

- Summary findings from all SDRs
- Business performance information
- Ongoing improvement initiatives about system-wide changes

- Improvement suggestions/decisions or required changes to strategy
- Dependent impact on tail risk for a lead time distribution to inform Risk Review

- SDM & SRM per system, managers, individual contributors, customer representatives per Kanban system

- Scope: a product or business unit
- Dependencies understood, interdependent effects exposed
- Kaizen events suggested, improvement opportunities assigned

Monthly

2 hrs

2 hours

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Risk Review

Facilitator

SDM / Kanban Coach

Look at problems that put the delivery capability of 1 or more Kanban systems at risk

- Issues from Ops Review and Service Delivery Reviews
- Decisions from Delivery Planning Meeting

- Inform Delivery Planning
- Enable changes in service delivery and Kanban system design (flow to Service Delivery Review(s) and Operations Review)

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Monthly

1-2 hours

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Service Delivery Review

Facilitator

Service Delivery Manager

Look at whether we are delivering according to customer expectations. Looks at a single Kanban system.

- Progress and data from Kanban Meeting
- Decisions from Operations Review
- Actions from Risk Review

- Findings will be reported at the Operations Review.

- SRM, (parts of the) delivery team, team leads, optionally customers & other external stakeholders

- Compare current capabilities against expectations, balance demand vs. capability, hedging risk.
- Discuss options for risk mitigation & system changes.

Twice a month

30 mins

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Replenishment Meeting

Facilitator

SRM or Product / Project Manager

Decide what options to start next

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- Decisions regarding what to pull
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- Decision makers
- Business stakeholders
- Service delivery staff

- It's an act of commitment.
- Check against "Ready for Delivery"

Weekly, see arrival rate of info

20-30 mins

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Kanban Meeting

Facilitator

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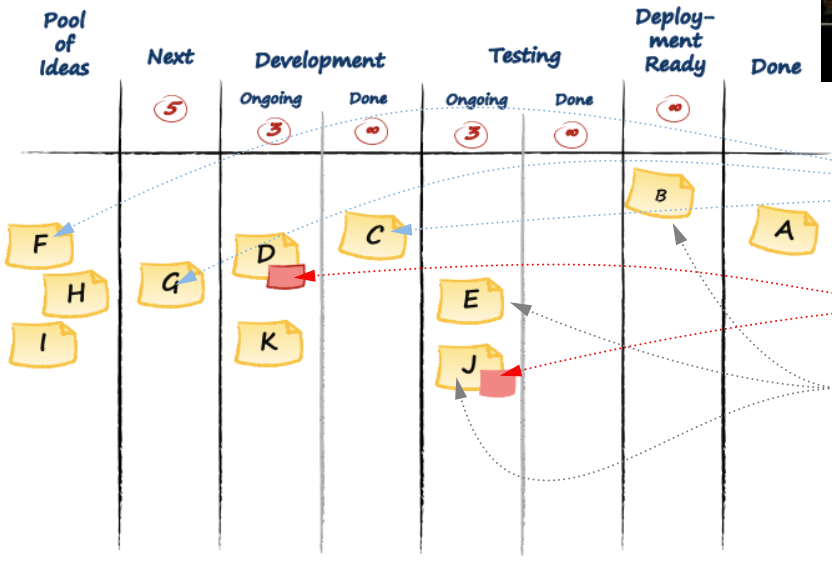
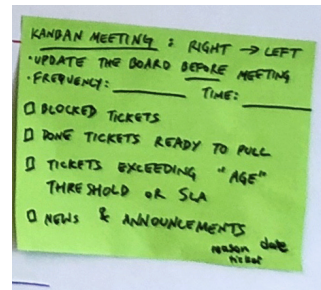
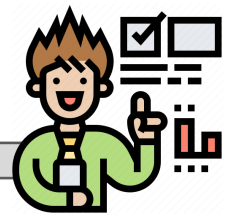




"Walking the board" left to right

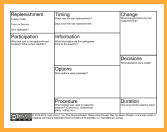


Facilitator

Exercise

Design of the Replenishment Meeting

1) Identify and Observe how Replenishment happens today
2) Consider design changes for the meeting



PDF Version

Replenishment

Who facilitated?

SRM

Timing

Which day? Time?

When was the last one? (frequency)

weekly, tuesday morning

Change

What's different since the last meeting? (people, content, options, process, etc.)

options, priority, board clean up

Participation

Who attended?

What roles did they play?

INTERNAL TEAM

internal team is receiving information

devils advocates

Information

What info was brought?

priority list, new requests, recommendations, try to build out board for two week increment

Options

What options were considered?

priorities

capacity

backlog (refined)

Decisions

What decisions were made?

what we will work on next

Procedure

How were decisions made?

based on priority

size & complexity

Duration

How long did it take?

1 hour

Design of the Replenishment Meeting

1) Identify and Observe how Replenishment happens today
2) Consider design changes for the meeting

Room 1

Replenishment

Who facilitated?

Timing

Which day? Time?

When was the last one? (frequency)

Change

What's different since the last meeting? (people, content, options, process, etc.)

Participation

Who attended?

What roles did they play?

Information

What info was brought?

Decisions

What decisions were made?

Options

What options were considered?

Procedure

How were decisions made?

Duration

How long did it take?

Exercise

Design of the Replenishment Meeting

1) Identify and Observe how Replenishment happens today
2) Consider design changes for the meeting

Room 2

Replenishment

SRM

Timing

weekly

last week

Change

What's different since the last meeting? (people, content, options, process, etc.)

Participation

full team

Team may identify more detail of the need.

business may attend adhoc. eg. tshirt size

Team provides input on effort

Information

no new work.

Review initial user story based on intake

questions from PO discussed

Options

next priority column

backlog if nothing prioritized

Decisions

What decisions were made?

Procedure

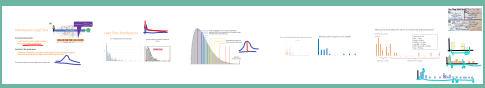
dependencies considered

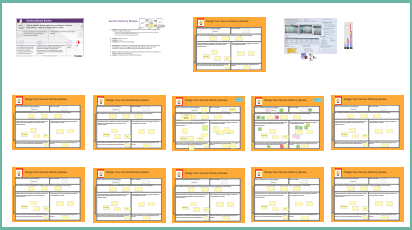
SRM decides based on priorities, due dates

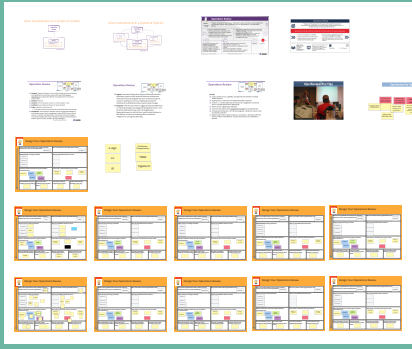
team advises

Duration

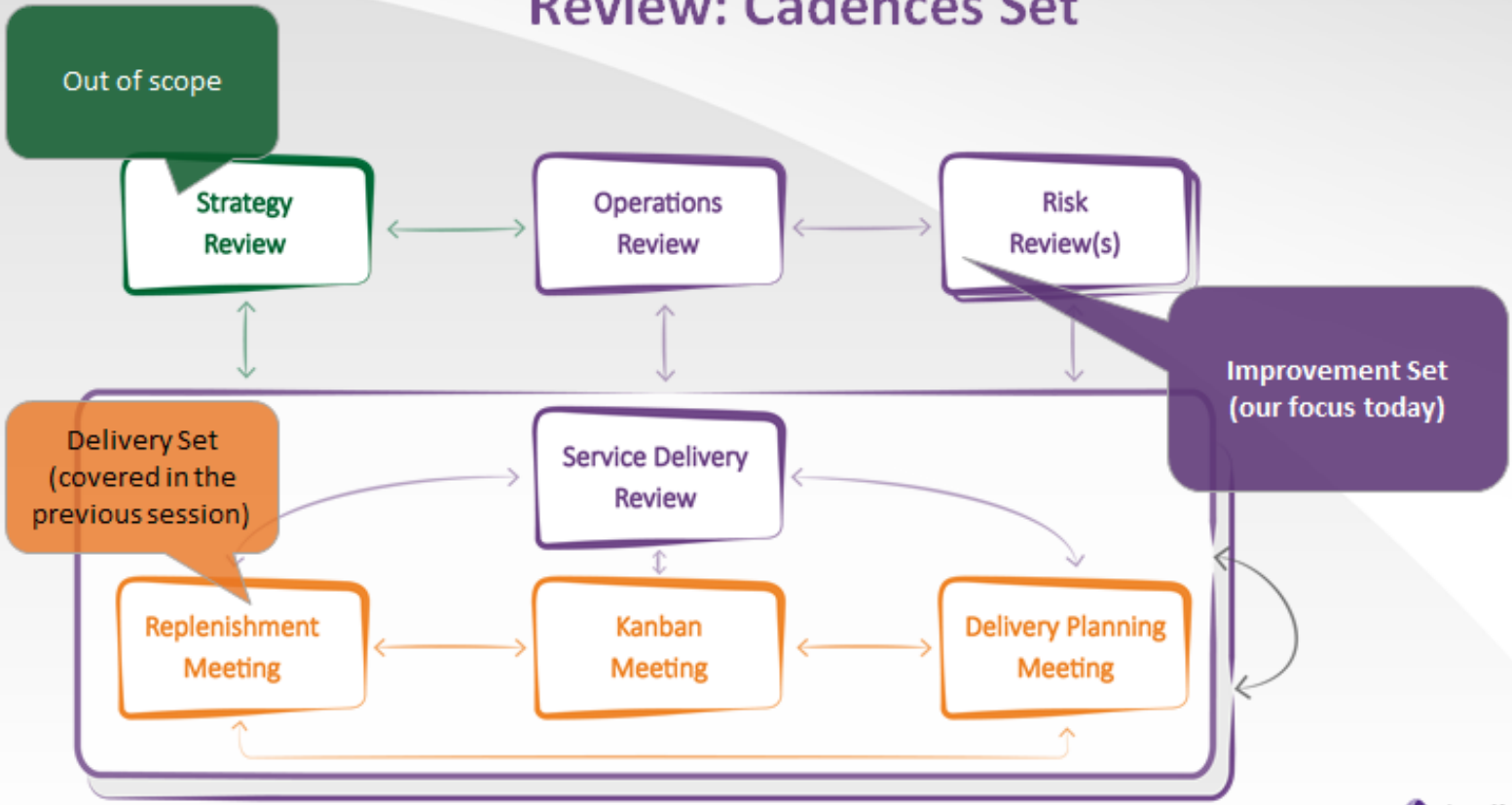
30 min, usually less







Review: Cadences Set



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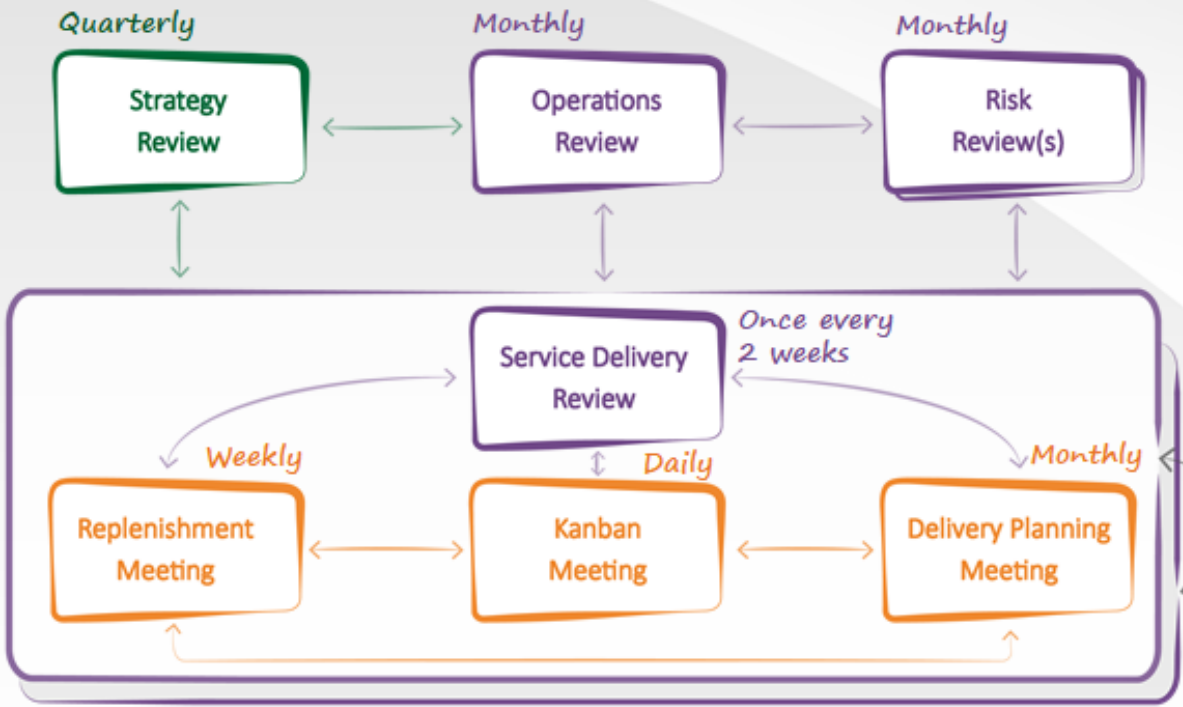
Example 1: Cadence of Meetings and Reviews



This diagram shows a typical cadence for a medium-sized Service Delivery organization with multiple services in place.

You will need to adjust the frequencies to your needs!

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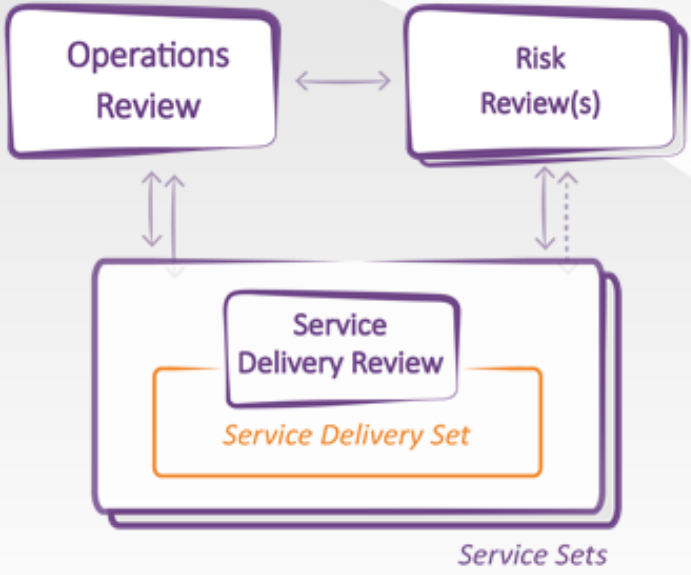
Sneak Preview: Strategy Review

- Purpose: To review and assess current markets, strategic position, KPIs, strategy, and capabilities
- Key to aligning strategy and capabilities
- Attended by senior executives and representatives from strategic planning, sales, marketing, portfolio management, risk management, service delivery, and customer care
- Key touchpoints with Cadences: Affects replenishment decisions and policies and consumes data from Operations Review.

Overview of Improvement Set



Introduction: Lead Time

An inconvenient truth:

Lead time(*) is not a single number.
It is a probability distribution.

And here's the good news:

Different distributions can tell us what type of work is being completed and help us make risk management or planning decisions.

(*) customer lead time, time-to-market, time-in-process, etc.

Lead Time Distributions

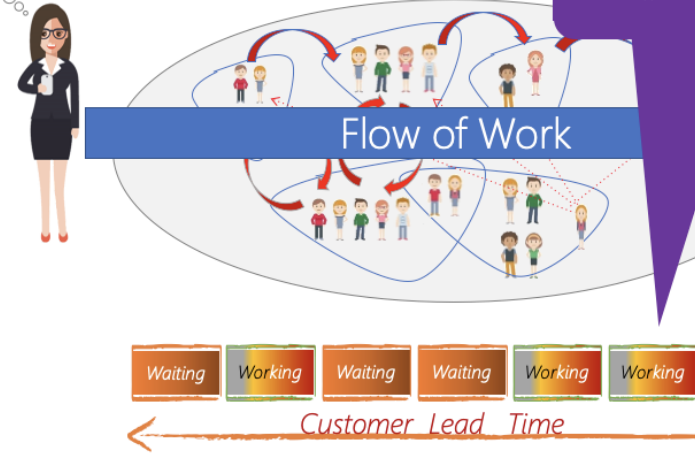
A major network hardware company in China

Your very first lead time chart may not look nice

Binning makes histograms more readable

What can we know about this service from these few (29) observations?

Introduction: Lead Time



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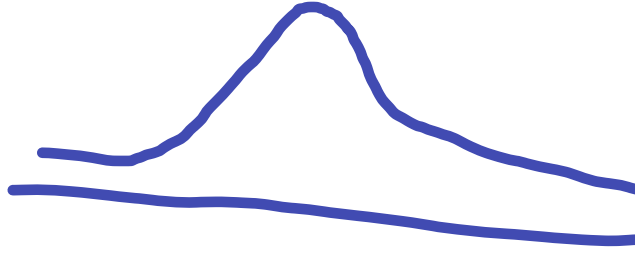

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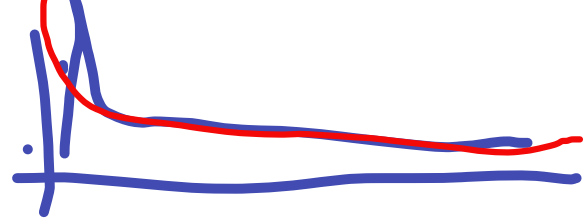
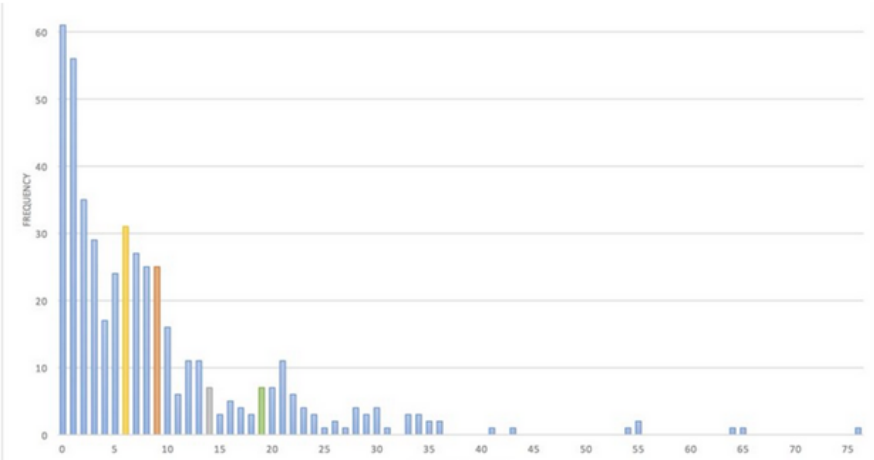
Lead Time Distributions



An IT operations service in Germany



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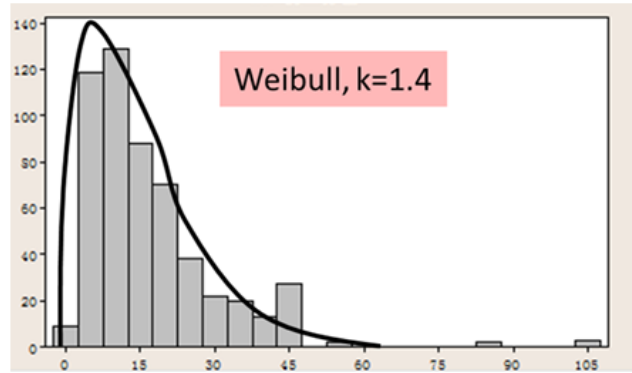
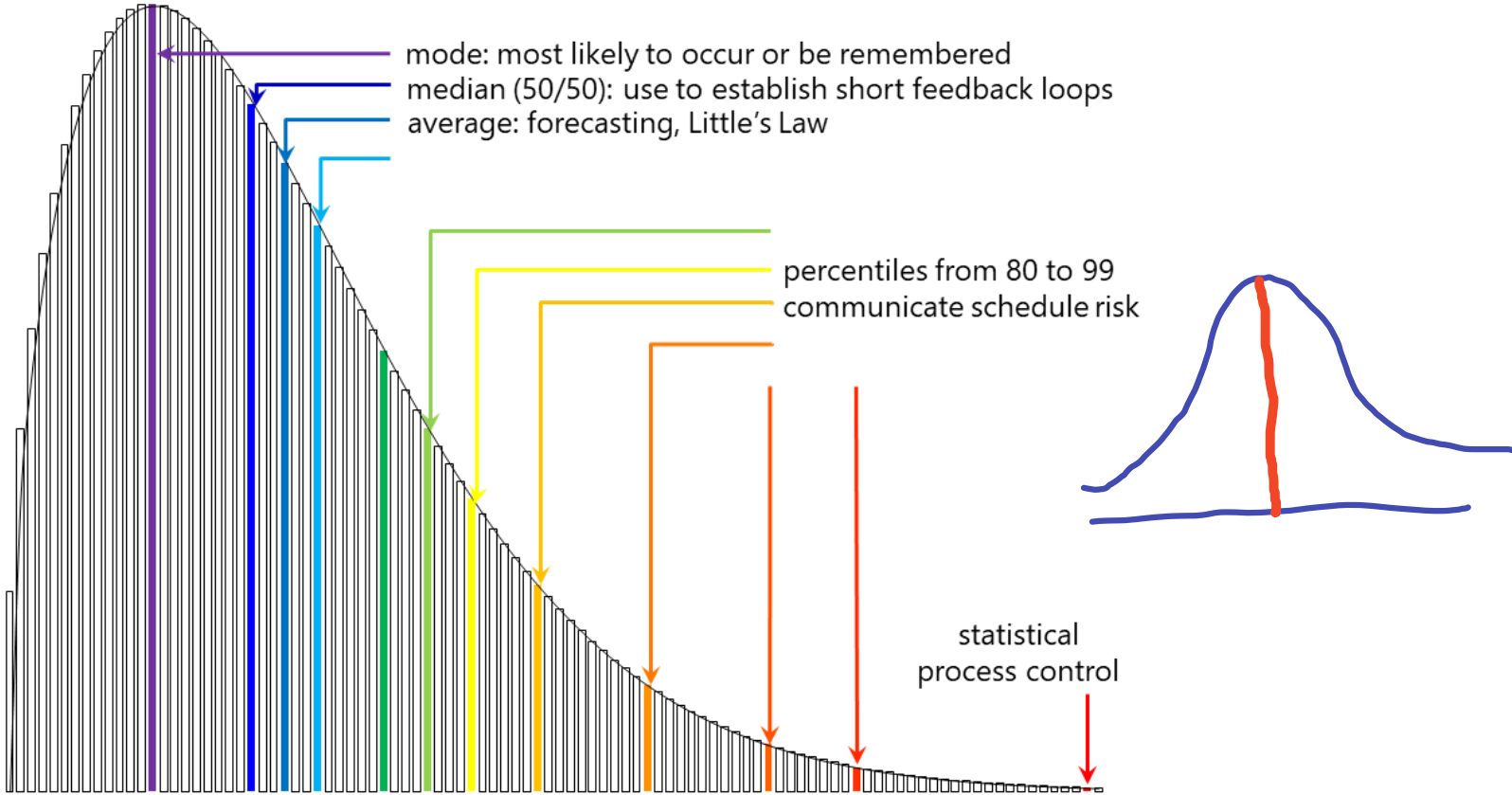
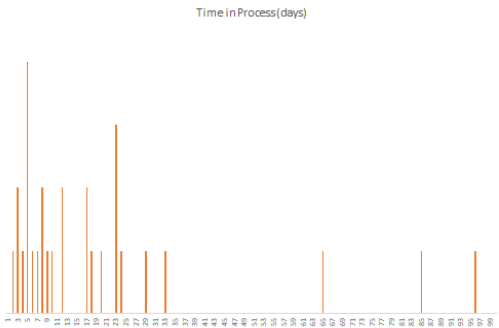



mode: most likely to occur or be remembered
median (50/50): use to establish short feedback loops
average: forecasting, Little's Law
percentiles from 80 to 99
communicate schedule risk
statistical
process control

Your very first lead time chart may not look nice



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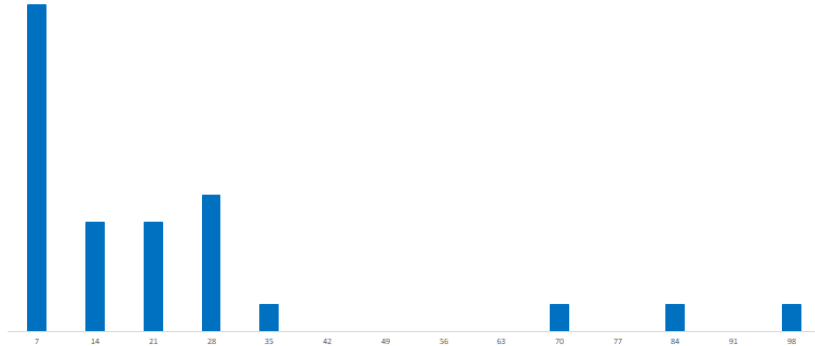
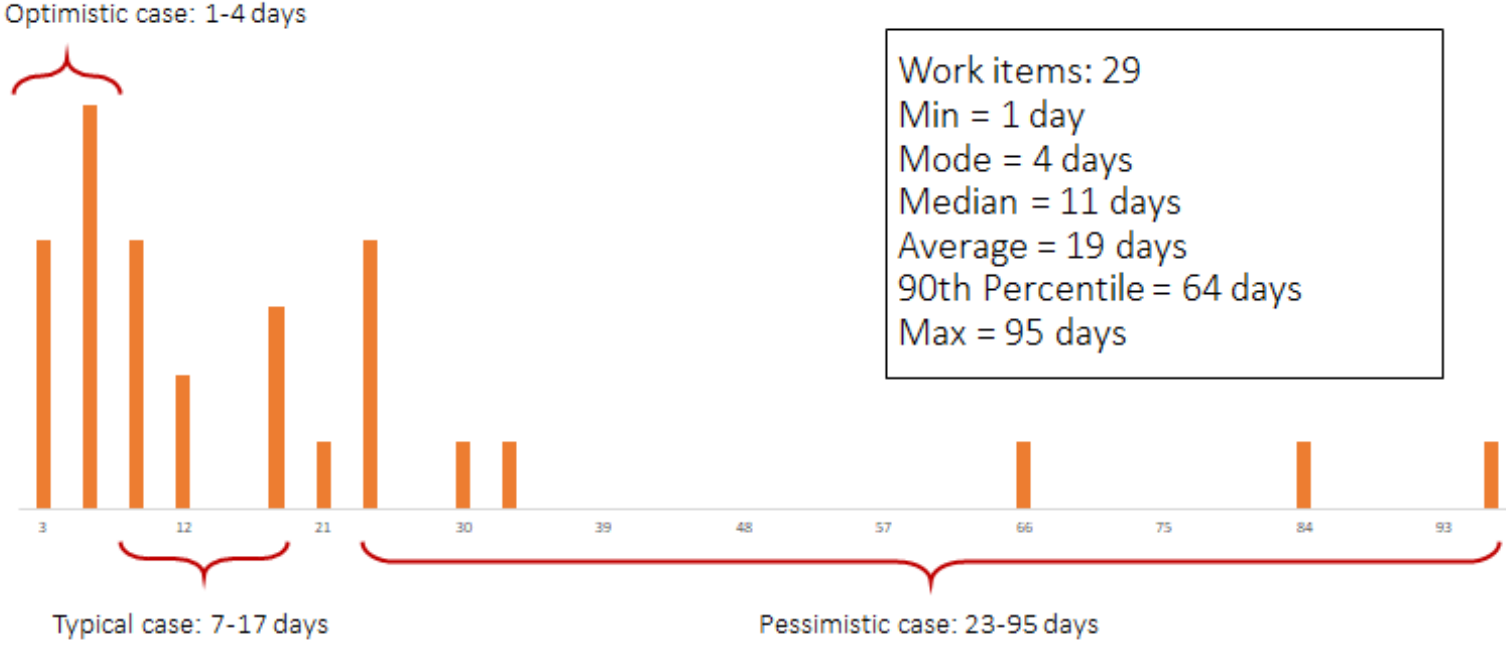
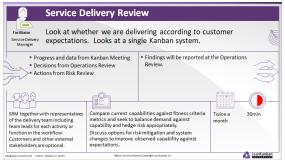
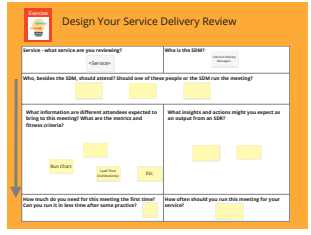


What can we know about this service from these few (29) observations?




Service Delivery Review
Look at whether we are delivering according to customer expectations. Looks at a single Kanban system.
Facilitator
Service Delivery Manager
• Progress and data from Kanban Meeting
• Decisions from Operations Review
• Actions from Risk Review
• Findings will be reported at the Operations Review.
SDM together with representatives of the delivery team including team leads for each activity or function in the workflow. Customers and other external stakeholders are optional.
Compare current capabilities against fitness criteria metrics and seek to balance demand against capability and hedge risk appropriately.
Discuss options for risk mitigation and system changes to improve observed capability against expectations.
Twice a month
30min

Service Delivery Review
Purpose: Look at whether we are delivering according to customer expectations. Looks at a single kanban board
Cadence: Twice a month
Duration: ½ hour
Facilitator: Service Delivery Manager
Participants: includes Service Request Manager together with representatives of the delivery team including team leads for each activity or function in the workflow. Customers and other external stakeholders are optional
Inputs: Progress and data from Daily Kanban Meeting; Decisions from Operations Review. Actions from Risk Review.
Outputs: Findings reported at Operations Review.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Design Your Service Delivery Review
Service - what service are you reviewing?
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Who, besides the SDM, should attend? Should one of these people or the SDM run the meeting?
What information are different attendees expected to bring to this meeting? What are the metrics and fitness criteria?
Run Chart
Lead Time Distribution(s)
Etc.
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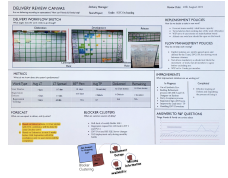
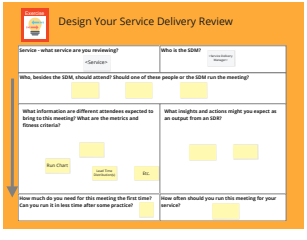
How often should you run this meeting for your service?


DELIVERY REVIEW CANVAS
DELIVERY WORKFLOW DETAILS
REQUIREMENTS TO START
FLOW MANAGEMENT POLICIES
METRICS
CHECKLISTS
FORECAST
BLOCKER QUESTIONS
ANONYMOUS TEAM QUESTIONS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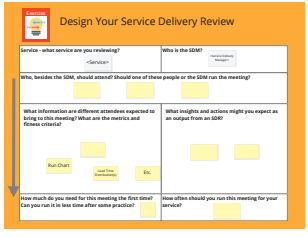
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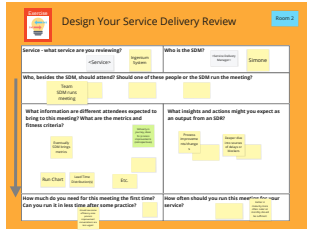
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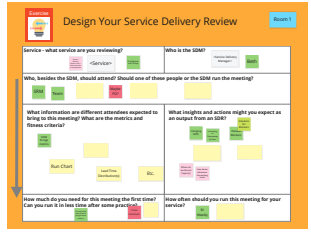
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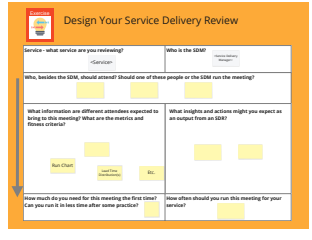
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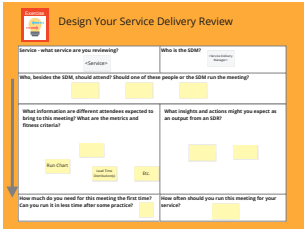
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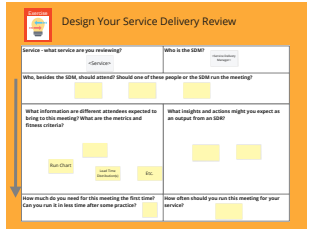
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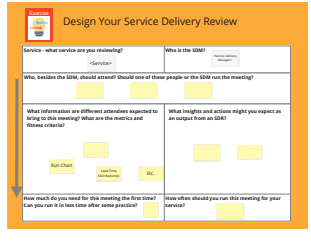
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Service Delivery Review

Facilitator

Service Delivery Manager

Look at whether we are delivering according to customer expectations. Looks at a single Kanban system.

- Progress and data from Kanban Meeting
- Decisions from Operations Review
- Actions from Risk Review

- Findings will be reported at the Operations Review.

SRM together with representatives of the delivery team including team leads for each activity or function in the workflow. Customers and other external stakeholders are optional.

Compare current capabilities against fitness criteria metrics and seek to balance demand against capability and hedge risk appropriately.

Discuss options for risk mitigation and system changes to improve observed capability against expectations.

Twice a month

30min

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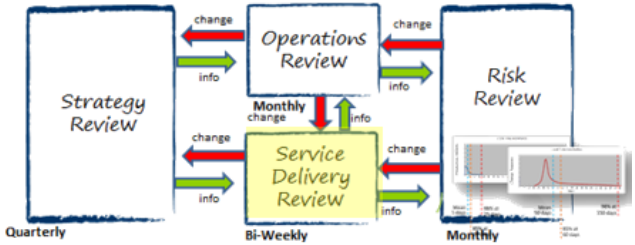
Service Delivery Review



- **Purpose:** Look at whether we are delivering according to customer expectations. Looks at a single kanban board.
  - Compare current capabilities against fitness criteria metrics and seek to balance demand against capability and hedge risk appropriately.
  - Also known as, kanban system capability review

- **Cadence:** Twice a month
- **Duration**: ½ hour
- **Facilitator:** Service Delivery Manager

- **Participants:** includes Service Request Manager together with representatives of the delivery team including team leads for each activity or function in the workflow. Customers and other external stakeholders are optional

- **Inputs**: Progress and data from Daily Kanban Meeting; Decisions from Operations Review. Actions from Risk Review.
- **Outputs**: Findings reported at Operations Review.

Exercise

Design Your Service Delivery Review

Service - what service are you reviewing?

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Who is the SDM?

<Service Delivery Manager>

Who, besides the SDM, should attend? Should one of these people or the SDM run the meeting?

What information are different attendees expected to bring to this meeting? What are the metrics and fitness criteria?

Run Chart

Lead Time Distribution(s)

Etc.

What insights and actions might you expect as an output from an SDR?

How much do you need for this meeting the first time? Can you run it in less time after some practice?

How often should you run this meeting for your service?

Exercise

Design Your Service Delivery Review

Room 2

Service - what service are you reviewing?

<Service>

Ingenium System

Who is the SDM?

<Service Delivery Manager>

Simone

Who, besides the SDM, should attend? Should one of these people or the SDM run the meeting?

Team SDM runs meeting

What information are different attendees expected to bring to this meeting? What are the metrics and fitness criteria?

Still early in journey, ideas for process improvements (retrospectives)

Eventually SDM brings metrics

Run Chart

Lead Time Distribution(s)

Etc.

What insights and actions might you expect as an output from an SDR?

Process improvements/changes

Deeper dive into sources of delays or blockers

How much do you need for this meeting the first time? Can you run it in less time after some practice?

should see some efficiency once process improvement conversations are less urgent

How often should you run this meeting for your service?

Earlier in maturity more often. Later on monthly should be sufficient

Exercise

Design Your Service Delivery Review

Room 1

Service - what service are you reviewing?

Service Delivery Review - but it feels more like a retrospective

<Service>

Distribution and COmp

Who is the SDM?

<Service Delivery Manager>

Beth

Who, besides the SDM, should attend? Should one of these people or the SDM run the meeting?

SRM

Team

Maybe PO?

What information are different attendees expected to bring to this meeting? What are the metrics and fitness criteria?

SDM brings metrics

Run Chart

Lead Time Distribution(s)

Etc.

What insights and actions might you expect as an output from an SDR?

Changing WIPS

Increasing or Decreeasing Up Next

Solutions for Blockers

Discuss Blockers

Where do we discuss Capacity?

How do we determine the working time?

How much do you need for this meeting the first time? Can you run it in less time after some practice?

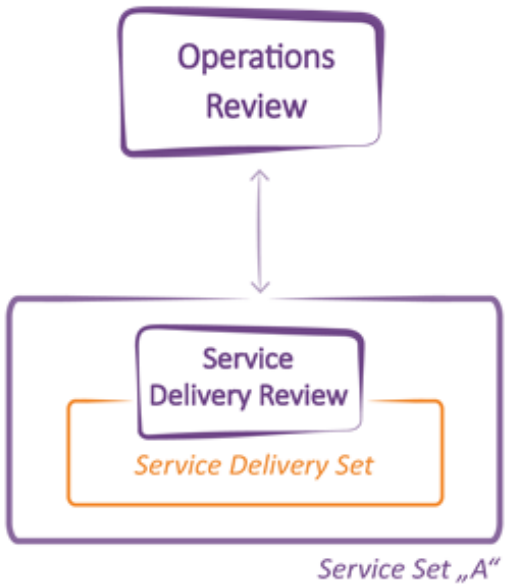
No may need more time as you get more metrics

1 hour minimum

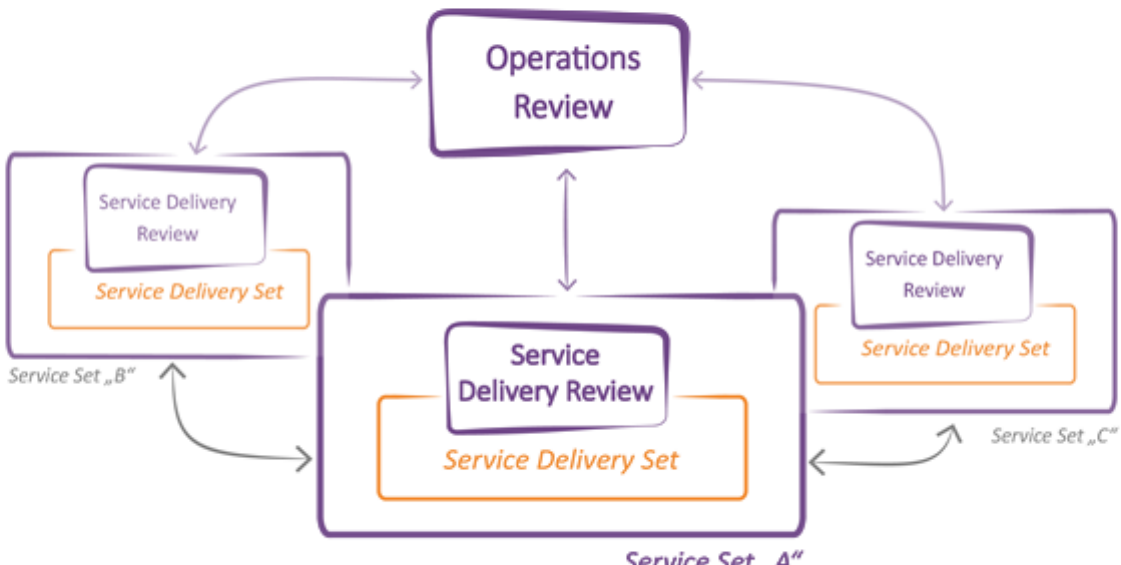
How often should you run this meeting for your service?

Bi Weekly

Drive Improvements in a System of Systems



Drive Improvements in a System of Systems



Operations Review

Facilitator

Depending on context

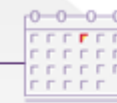
"System of Systems" level review. Disciplined review of demand and capability for each Kanban system with a particular focus on dependencies and dependent effects.

- Summary findings from all SDRs
- Business performance information from Strategy Review such as financial reports, customer satisfaction surveys
- Ongoing improvement initiatives from Risk Review about system-wide changes

- Improvement suggestions/decisions or required changes to strategy with designated owners sent to SDR and to Strategy Review
- Dependent impact on tail risk for a lead time distribution, to Risk Review, to inform prioritizing risks for reduction mitigation or contingency planning

SDM and SRM per system, senior management, head of PMO, customer representatives, downstream mid-level managers, Functional managers and senior individual contributors representing each Kanban system, Product, Portfolio, & Project Managers.

- Only applies where more than 1 system exists.
- Scope: a product or business unit
- Dependencies understood, interdependent effects exposed
- Kaizen events suggested by attendees
- Improvement opportunities assigned to managers
- Strictly orchestrated meeting, timed agenda



Monthly

2 hours

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Operations Review

"System of Systems" level review. Disciplined review of demand and capability for each Kanban system with focus on dependencies and dependent effects.

Systematic and data-driven review of how the system of system operates.

- Summary findings from all SDRs
- Business performance information
- Ongoing improvement initiatives about system-wide changes

- Improvement suggestions/decisions or required changes to strategy
- Dependent impact on tail risk for a lead time distribution to inform Risk Review

SDM & SRM per system, managers, individual contributors, customer representatives per Kanban system

Scope: a product or business unit

Dependencies understood, interdependent effects exposed

Kaizen events suggested, improvement opportunities assigned

Monthly

2 - 3.5 hours

Operations Review

- **Purpose:** "Systems of Systems" level review. Disciplined review of demand and capability for each kanban system with a particular focus on dependencies and dependent effects. Only applies where more than 1 system exists
- **Cadence:** Monthly
- **Duration:** 8-15 minutes per service, 2-2.5 hours total, 3.5 max
- **Facilitator:** Service Delivery Director (or Vice President)
- **Scope:** a product or business unit
  - For smaller/medium sized businesses scope will be the entire business
- **Participants:** Service Delivery Manager and Service Request Manager for each kanban system. Senior management. Head of PMO. Senior business owners or customer representatives. Downstream mid-level managers. Functional managers and senior individual contributors representing each kanban system. Product, Portfolio, & Project Managers.

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Operations Review

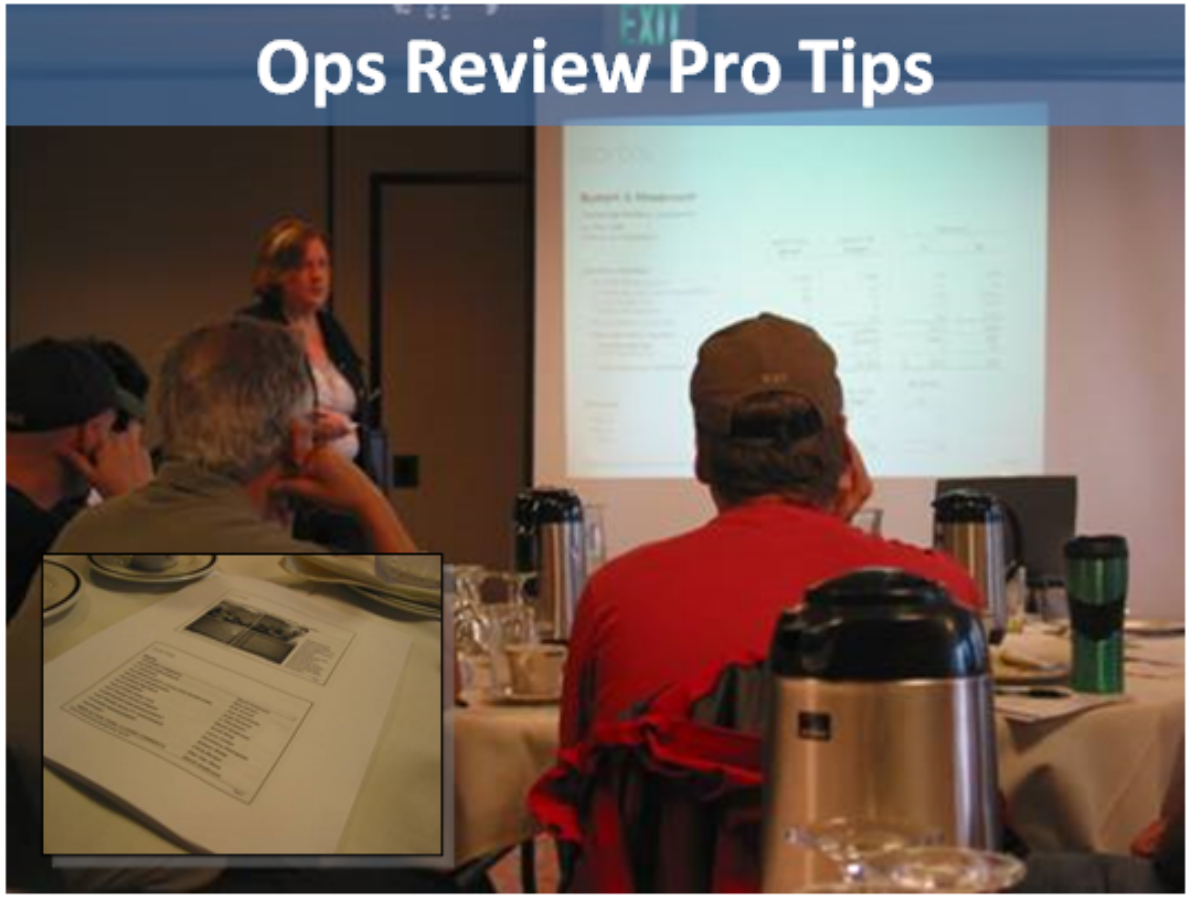
- **Inputs**: Summary findings from Service Delivery Reviews for all kanban systems in the network. Business performance information from Strategy Review such as financial reports, customer satisfaction surveys. Ongoing improvement initiatives from Risk Review about system-wide changes.
- **Outputs**: A list of improvement suggestions/actions/decisions or required changes to strategy with designated owners sent to Service Delivery Review and to Strategy Review. Dependent impact on tail risk for a lead time distribution, to Risk Review, to inform prioritizing risks for reduction mitigation or contingency planning.

Operations Review

Format

- Look at performance, capability, and dependencies between multiple kanban systems
- Dependencies understood. Interdependent effects exposed
- Scribed – 1-2 scribes take note of improvement suggestions and action items, circulate/publish them afterwards
- Kaizen events suggested by attendees
- Improvement opportunities assigned to managers as last agenda item
- Orchestrated Production / Strictly timed agenda – facilitator should not be among the presenters
- May be observed by outside coaches or consultants – this helps refine the format, make it more effective. Coaches should not scribe, facilitate or present

Ops Review Pro Tips



Ops Review Pro Tips

Less frequent than monthly is a slippery slope to "not at all"

Leader stops attending, they stop happening

Create safety!

Avoid dog and pony shows

Lead off with finances or strategy - you're running a business

Guest speaker from a different business un (15 minutes max) works well

Support SDMs through their preparation

First-ever Ops Review: the initiative group of 3-4 people plans it one month in advance (future facilitator, 1-2 SDMs, coach)

Master the SDR skills first

Exercise

Design Your Operations Review

What is the organizational scope (whole company, business unit, etc.) for this Ops Review?

<Biz Unit>

Who is the leader of this organizational unit?

<Leader>

What services are being reviewed?

<Service 1>

<Service 2>

<Service 3>

Who are the SDMs of these services?

<Service Delivery Manager 1>

<Service Delivery Manager 2>

<Service Delivery Manager 3>

Who will facilitate? Scribe? Be a guest speaker? Coach/observer?

<Faciltator>

<Scribe1>

<Guest Speaker>

<Scribe1>

<Coach>

Time check - how much time do you need?

Opening: ??? min

Each SDM has 8? 10? 12? 15? minutes

Closing: ??? min

Total Time: ??? hours

Best room/facility in your company for this meeting?

How many team members? How to select them?

How will you publish insights/action items?

Custom name for Ops Reviews in your org?

Exercise

Design Your Operations Review

What is the organizational scope (whole company, business unit, etc.) for this Ops Review?

ISS

Who is the leader of this organizational unit?

David

What services are being reviewed?

<Service 1>	D/C
<Service 2>	TRAD
<Service 3>	SONIC BOOM

Who are the SDMs of these services?

<Service Delivery Manager 1>	Beth
<Service Delivery Manager 2>	?
<Service Delivery Manager 3>	Joyce

SRM?

Who will facilitate? Scribe? Be a guest speaker? Coach/observer?

Janet or Steve

anyone

SDMs

anyone

Sheena

Time check - how much time do you need?

Opening: 5 min

Each SDM has 10 minutes

Closing: 5min

Total Time: 1 hour

Best room/facility in your company for this meeting?

ZOOM

How many team members? How to select them?

None- unless SME required

How will you publish insights/action items?

scribe to handle

Custom name for Ops Reviews in your org?

Journey review

Exercise

Design Your Operations Review

What is the organizational scope (whole company, business unit, etc.) for this Ops Review?

<E ISS t>

Who is the leader of this organizational unit?

<L Steve/Janet >

What services are being reviewed?

<Service 1>

<Service 2>

<Service 3>

Ingenium

Trad

Dist Comp

Sonic/Atomic Boom

SLFD Run team

Who are the SDMs of these services?

<Service Delivery Manager 1>

<Service Delivery Manager 2>

<Service Delivery Manager 3>

Simone

Anthony

Beth

Joyce

??Trad SDM

Who will facilitate? Scribe? Be a guest speaker? Coach/observer?

<Faciltator>

SDM rotation

<Scribe1>

recording

Kevin

Sheena

Time check - how much time do you need?

Opening: ??? min

15min

Each SDM has 8? 10? 12? 15? minutes

90min

Total Time: ??? ho

2hours

Closing: ??? min

10min

Best room/facility in your company for this meeting?

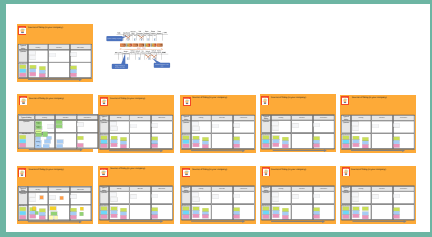
remote

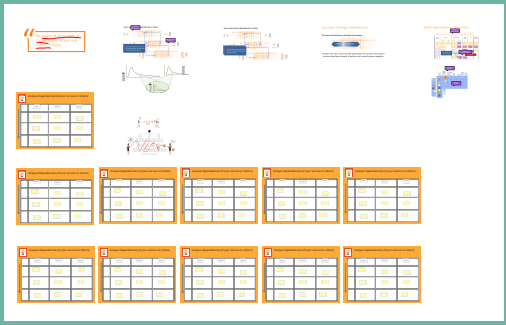
How many team members? How to select them?

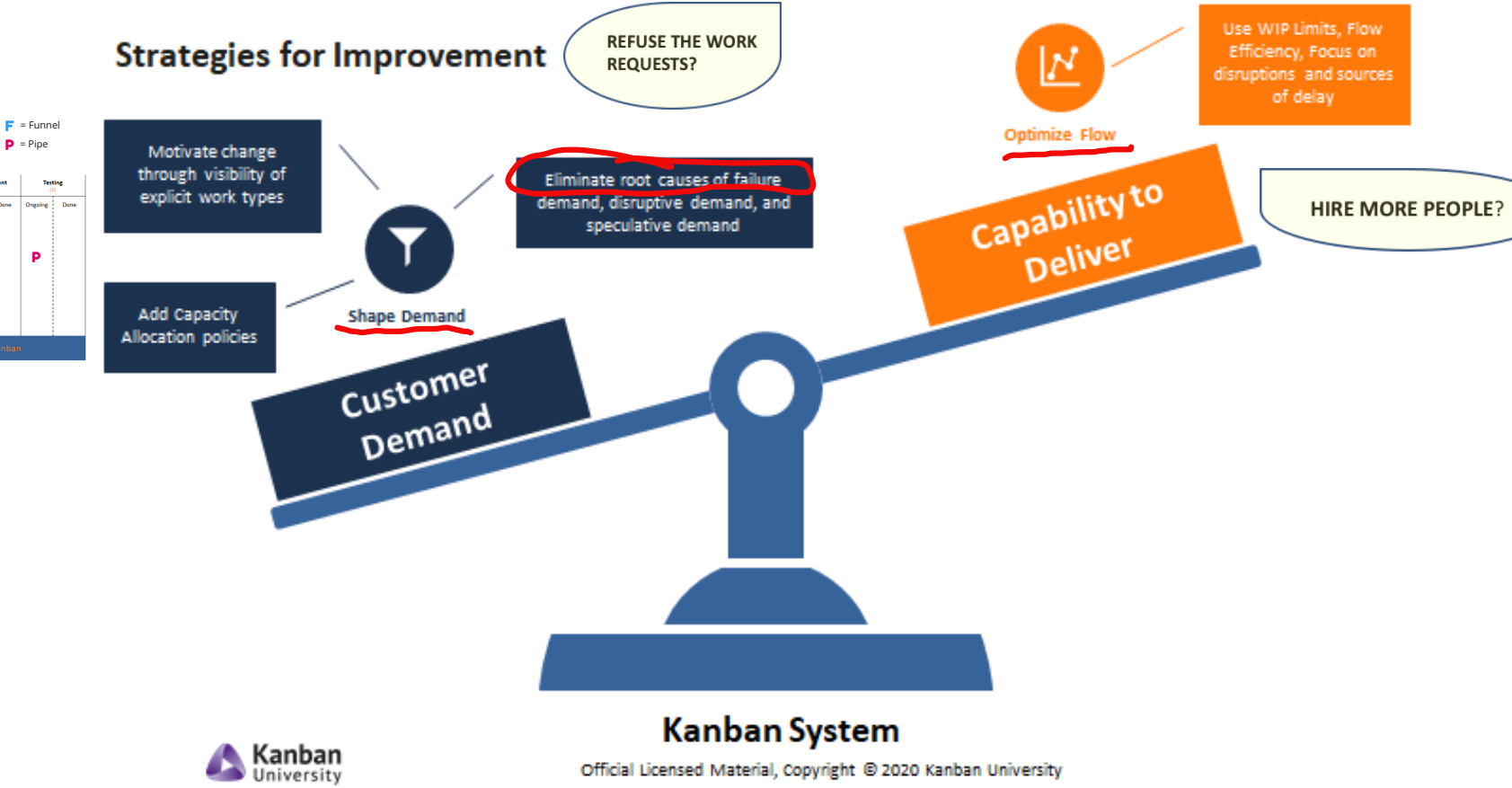
minimum

How will you publish insights/action items?

Custom name for Ops Reviews in your org?






Strategies for Improvement
REFUSE THE WORK REQUESTS?
Use WIP Limits, Flow Efficiency, Focus on disruptions and sources of delay
Optimize Flow
F = Funnel
P = Pipe
Motivate change through visibility of explicit work types
Eliminate root causes of failure demand, disruptive demand, and speculative demand
Capability to Deliver
HIRE MORE PEOPLE?
Add Capacity Allocation policies
Shape Demand
Customer Demand
Kanban System
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Strategies for Improving Capability

- Measure Performance and Remove Delays
  - Identify queues and buffers and size appropriately
  - Blocker Clustering – reduce or mitigate root causes
- Reduce Variability caused by disruptions and dependencies
  - Common cause – system design changes
  - Special cause – risk management
- Manage Bottlenecks
  - Improve flow
  - Deliver more value
- Address overhead and inefficiencies
  - Reduce waste/overhead
  - Enable smaller batches

Kanban System

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Learning Outcomes: After Attending this Section

- I can identify dependencies across services.
- I can apply suitable metrics to identify delays caused by dependencies.
- Given stable services, I can use Little's Law to find appropriate buffer sizes.

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Introduction: Lead Time

An inconvenient truth:

Lead time(*) is not a single number.
It is a probability distribution.

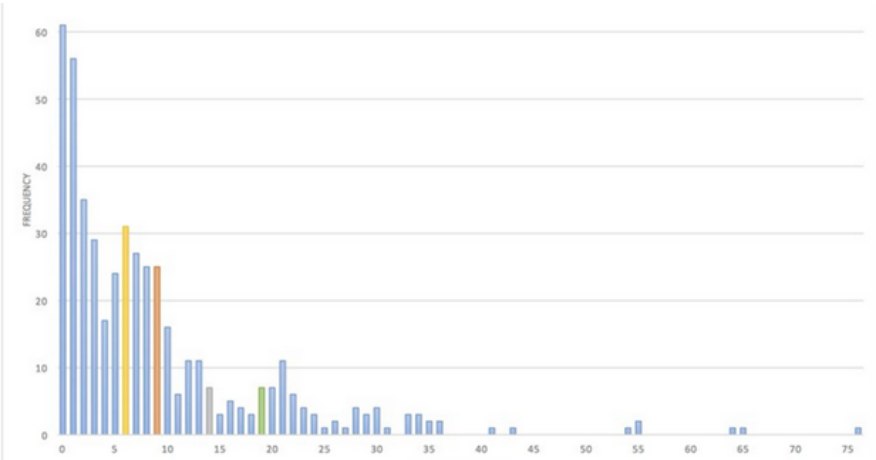
And here's the good news:

Different distributions can tell us what type of work is being completed and help us make risk management or planning decisions.

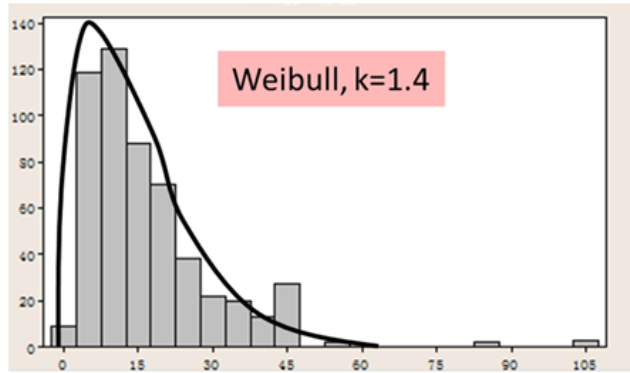
(*) customer lead time, time-to-market, time-in-process, etc.

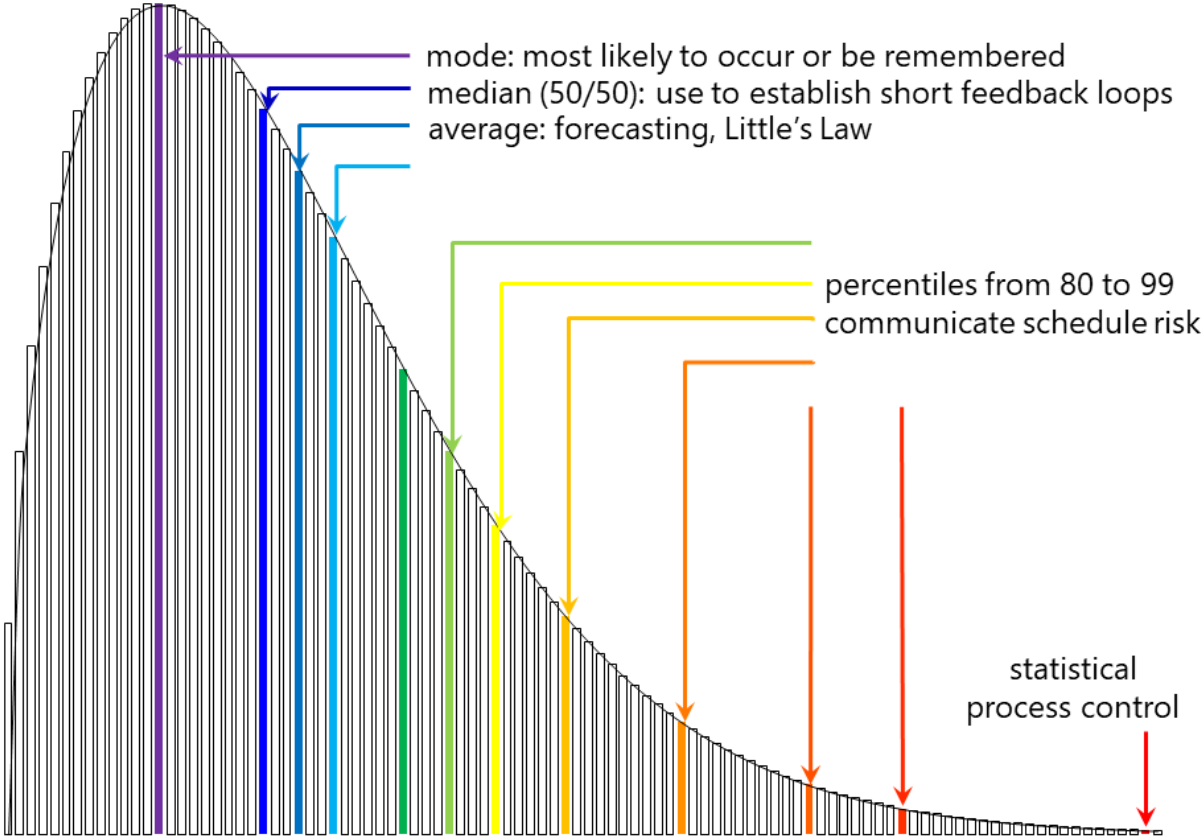
Lead Time Distributions

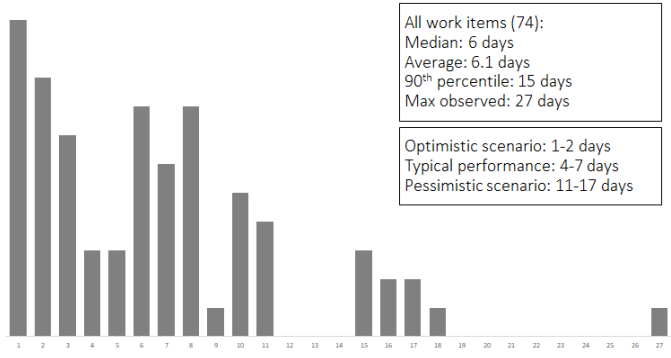
An IT operations service in Germany

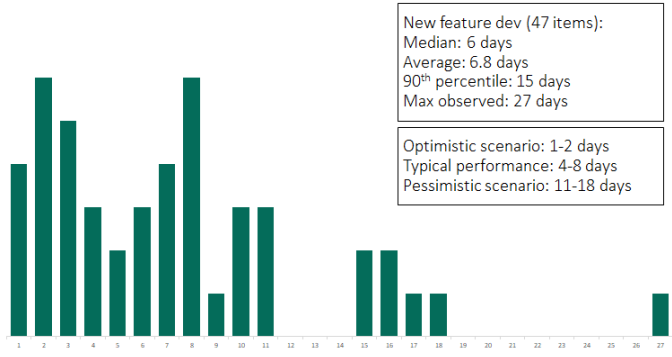


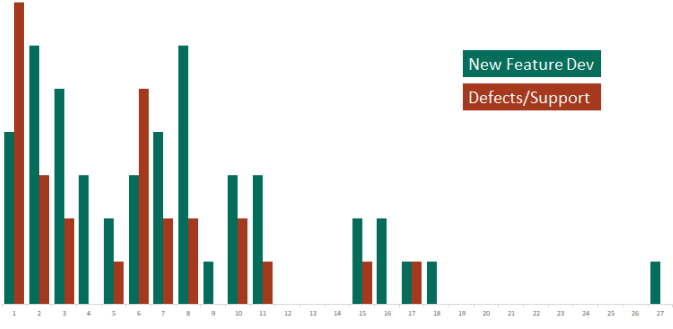
A major network hardware company in China

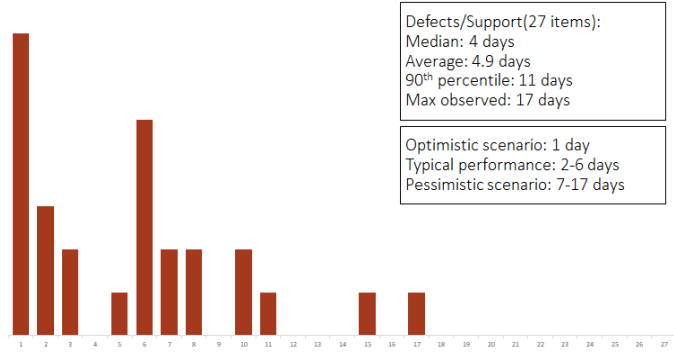


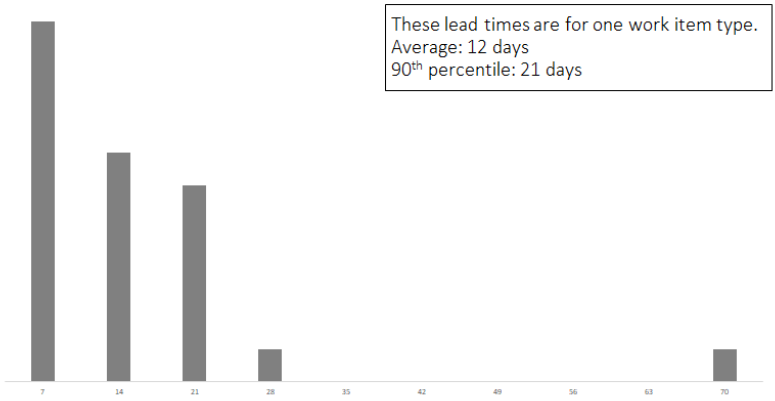

mode: most likely to occur or be remembered
median (50/50): use to establish short feedback loops
average: forecasting, Little's Law
percentiles from 80 to 99
communicate schedule risk
statistical
process control

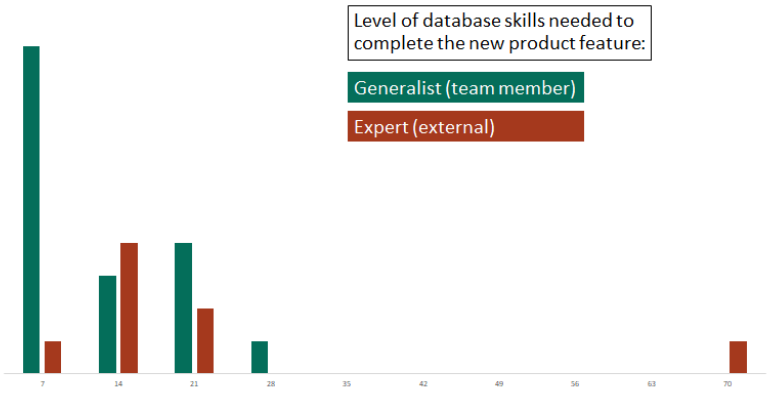

All work items (74):
Median: 6 days
Average: 6.1 days
90th percentile: 15 days
Max observed: 27 days
Optimistic scenario: 1-2 days
Typical performance: 4-7 days
Pessimistic scenario: 11-17 days


New feature dev (47 items):
Median: 6 days
Average: 6.8 days
90th percentile: 15 days
Max observed: 27 days
Optimistic scenario: 1-2 days
Typical performance: 4-8 days
Pessimistic scenario: 11-18 days

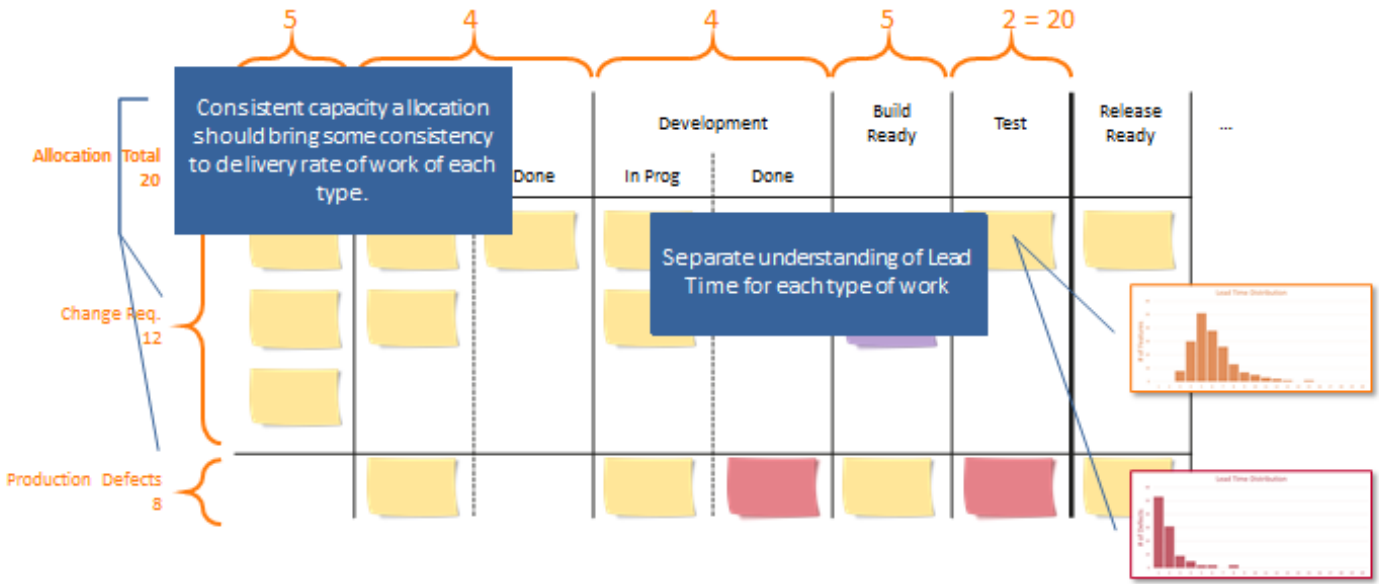

New Feature Dev
Defects/Support


Defects/Support(27 items):
Median: 4 days
Average: 4.9 days
90th percentile: 11 days
Max observed: 17 days
Optimistic scenario: 1 day
Typical performance: 2-6 days
Pessimistic scenario: 7-17 days


These lead times are for one work item type.
Average: 12 days
90th percentile: 21 days
7
14
21
28
35
42
49
56
63
70


Level of database skills needed to complete the new product feature:
Generalist (team member)
Expert (external)
7
14
21
28
35
42
49
56
63
70

Allocate Capacity to Types of Work



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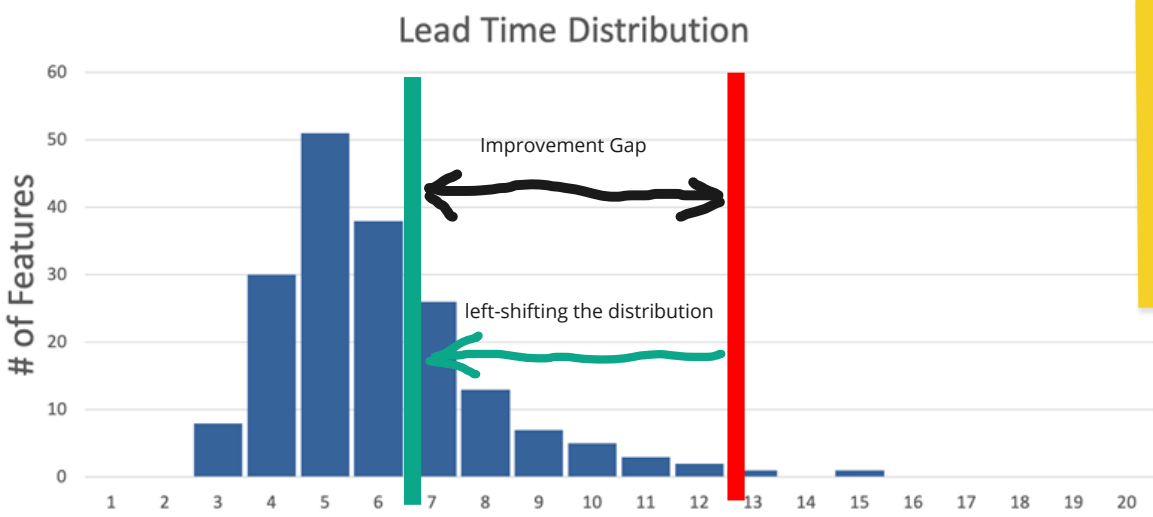
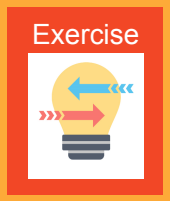
Use Lead Time Distribution to Evaluate Service Delivery Effectiveness



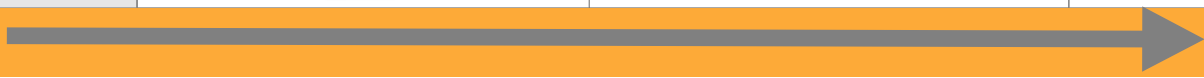
What are customers' expectations?

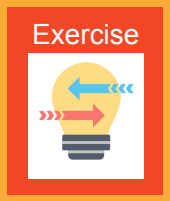


Sources of Delay (in your company)

1. Identify queues - where do work items queue in your service?
2. Identify dependencies - do work items in your service depend on unique specialist skills? other services in your company? external vendors?
3. Describe queues - are they first-in-first-out, dynamic selection/prioritization? several classes of service? some work items skip quickly, others wait for a long time?
4. Describe each dependency - how many (or what %) work items does it affect? How much does it add to the lead time? Can you predict, control or influence this duration?
5. Take action - can you reduce or limit the queues? Can you reduce the variation of queuing time? What are the implications to your customers and other activities in your process?
6. Take action - Can you reduce or limit the duration of delays due to dependencies? Can you decrease the number (or %) of work items affected by a dependency? Would that change the risk in delivering the work? Can you imagine the circumstances were avoiding a dependency (and the delay it causes) would be acceptable?

Type of delay	Identify	Describe	Take Action
Queues	Ready to test Ready to deploy Up Next?	Dev, code review and UT done all done holding to implement	
Dependencies Internal to your service external to your service, internal to your business External to your business	holistic testing (need to wait for all features to be done knowledge constraint Test data set-up Business isn't ready with requirements funding Business sign-off AOS conflicting priority	business sign-off, waiting for approvals.. AOS- must accept transition	





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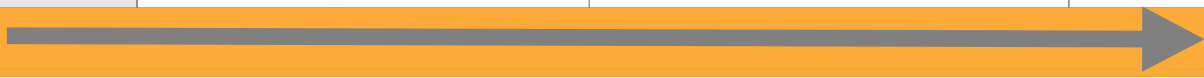

Exercise

Sources of Delay (in your company)

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Type of delay	Identify	Describe	Take Action
Queues	one sticky note for each location		
Dependencies Internal to your service external to your service, internal to your business External to your business			

Exercise

Sources of Delay (in your company)

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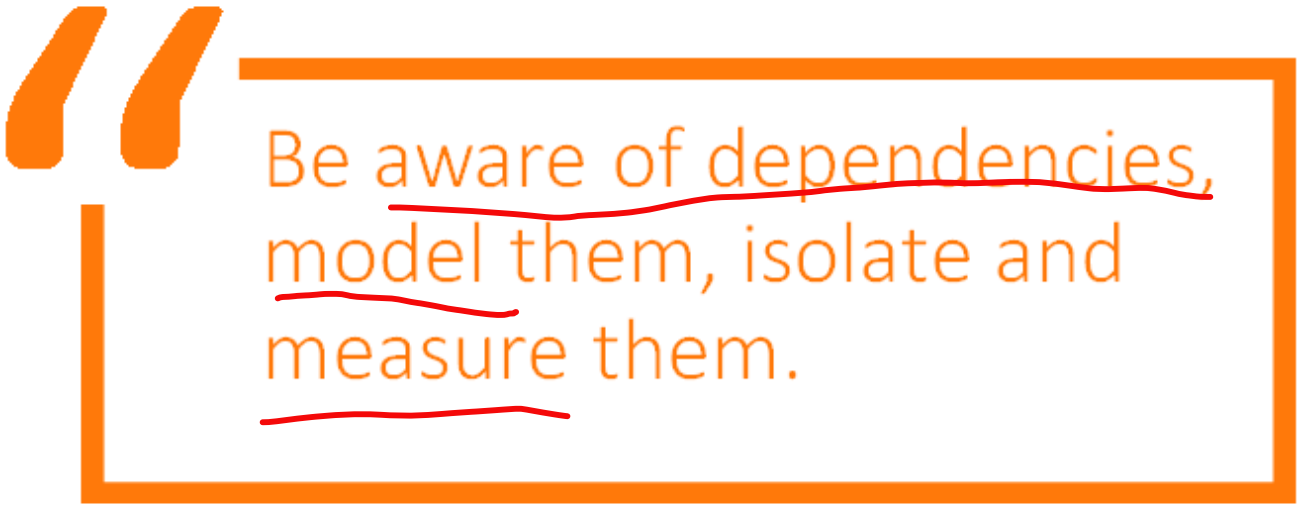
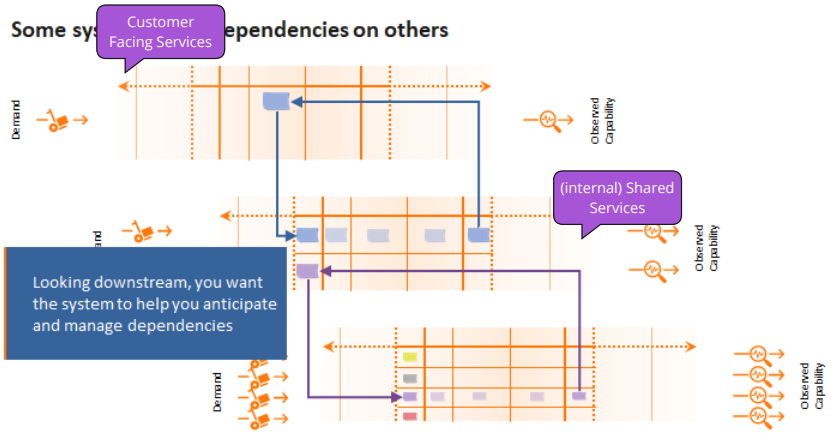
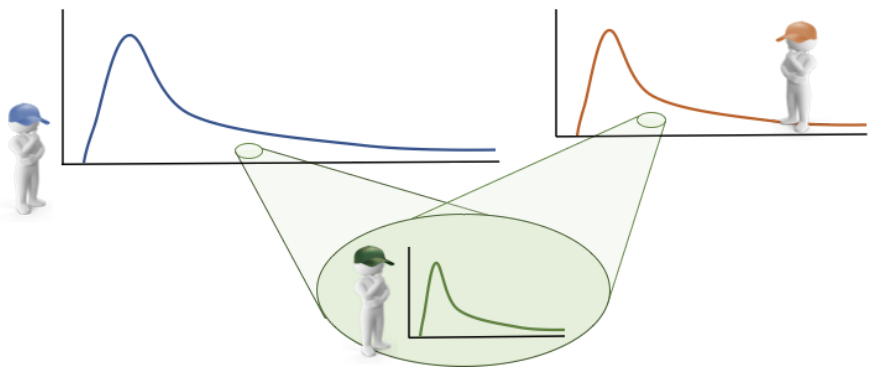
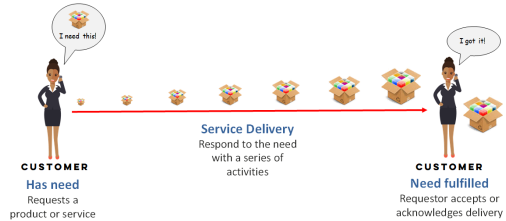
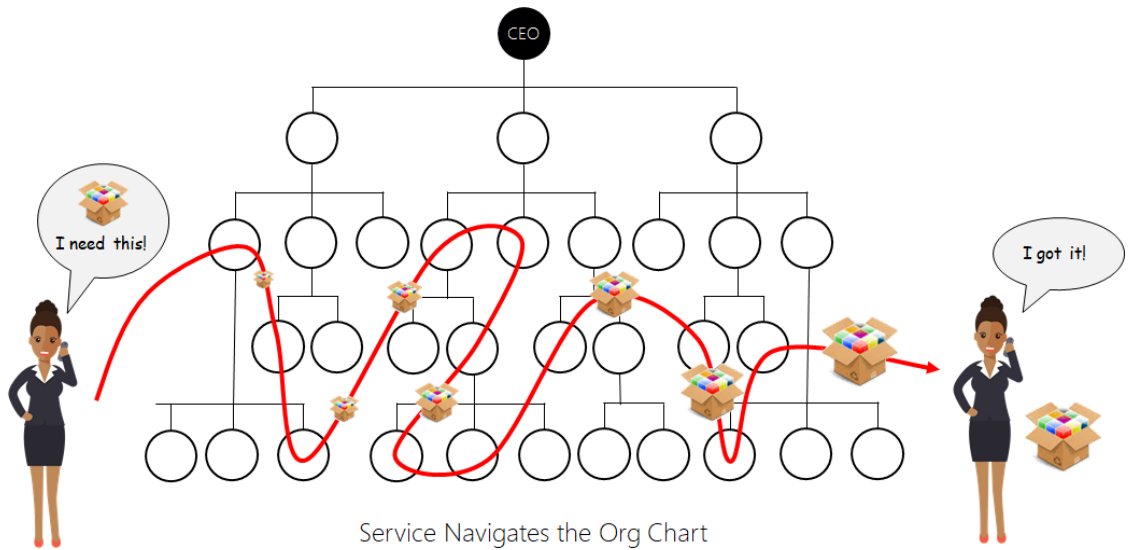
Type of delay	Identify	Describe	Take Action
Queues	one sticky note for each location waiting for testing	Technical dependencies to test code together	
Dependencies Internal to your service external to your service, internal to your business External to your business	In build Upstream or BAT	Bottleneck with one specific expertise on team waiting for business decisions or business availability Enviromental issues/outages Vendor delays	cross training Policy to put on hold if you don't get answers


Be aware of dependencies, model them, isolate and measure them.

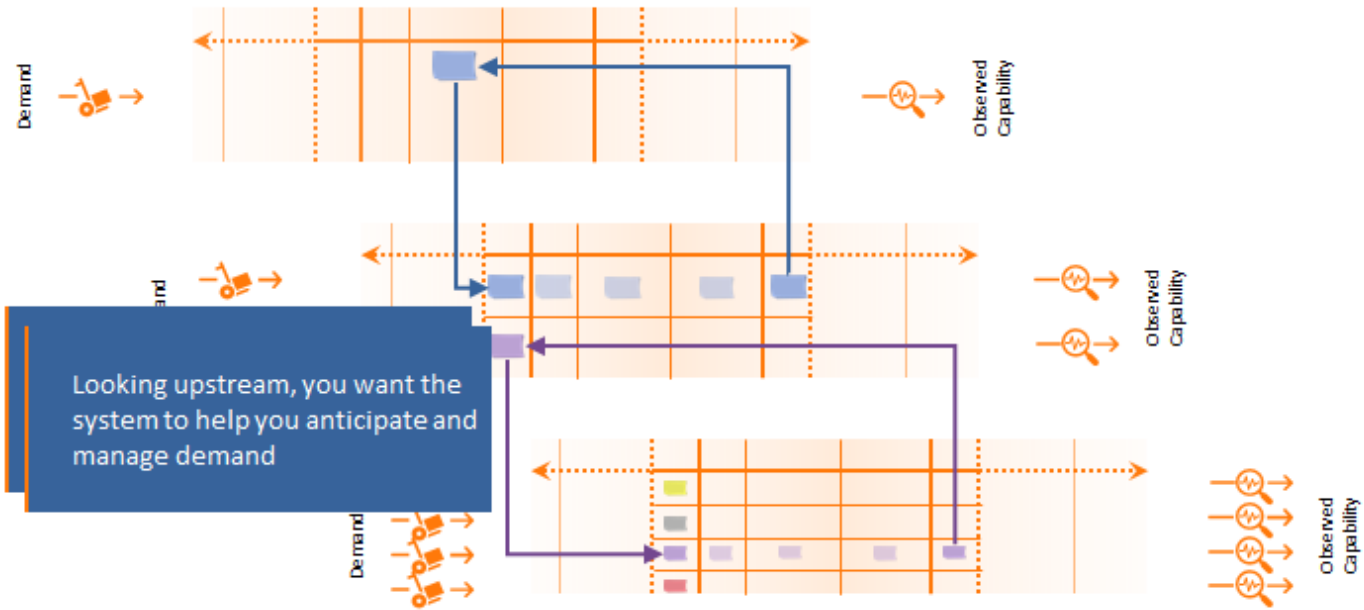

Some sys
ependencies on others
Customer Facing Services
Demand
Observed Capability
(internal) Shared Services
Looking downstream, you want the system to help you anticipate and manage dependencies
Demand
Observed Capability




I need this!
I got it!
Service Delivery
Respond to the need with a series of activities
CUSTOMER
Has need
Requests a product or service
CUSTOMER
Need fulfilled
Requestor accepts or acknowledges delivery

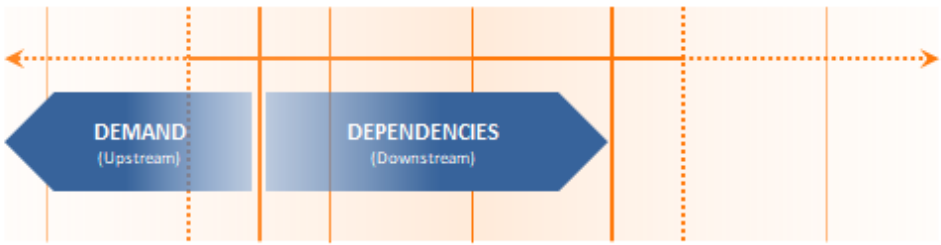

CEO
I need this!
I got it!
Service Navigates the Org Chart

Some systems have dependencies on others



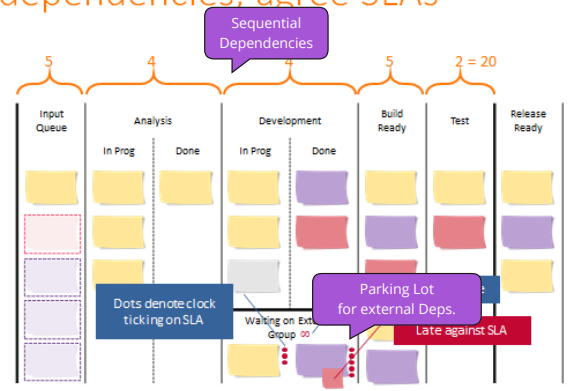
Summary: Manage Dependencies

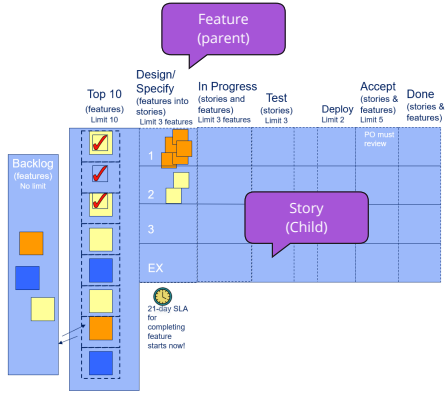
The system should help you anticipate and manage …



Combine the two, and across the organization you smooth flow end-to-end and help keep demand in balance with overall system capability.

Buffer dependencies, agree SLAs





Exercise

Analyze Dependencies (of your service on others)

Identify services you depend on *Can one of them be your Customer?*	AOS	<Service 2>	<Service 3>
Anticipate dependencies *Which work items will have dependencies on external services? Is this need predictable?*			
Anticipate demand *What is the dependent service's perspective? Do they have multiple customers and offer classes of service to you?*			
Find improvement *How can the interaction between the 2 services improve?*			

"Is Kanban a solution for successful change initiatives?"

Variation: "Lack of compliance and adoption"

Variation: "Lack of compliance and adoption"

Lack of flexibility to react to changing circumstances

Kanban

Lack of flexibility in dealing with organizational politics

Politics in your organization

Kanban can reveal bottlenecks. Kanban can help you get out of bottlenecks like no. our workers.

Bottleneck or slag to-day 4th

Theory of Constraints

Where are your bottlenecks?

"Is Kanban a solution for successful change initiatives?"

The Formal Method

"Successful evolutionary change requires a culture of learning"

> Risk is an exception to what is expected. We can have deliberate strategies to mitigate risk. Understanding types of risk informs our actions.

Variation: "Lack of consistency or fixed pattern"

Common Cause ("Chance Cause")

- Expected or unsurprising
- Inside of typical system parameters. "The noise within the system"

Special Cause ("Assignable Cause")

- Unexpected and unpredictable
- Possible but outside of system control

Variation: "Lack of consistency or fixed pattern"

Common Cause ("Chance Cause")

- Expected or unsurprising
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Improve processes

Change system design

Special Cause ("Assignable Cause")

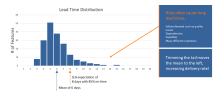
- Unexpected and unpredictable
- Possible but outside of system control

Take specific actions to mitigate risk

Risk Management trims the tail

Identify risks, their likelihood & impact (delay that extends lead time).

Eliminating risks or reducing their impact trims the tail on the distribution.



Blocker Clustering

- Collect all blockers (description and ideally blocked time) over a period of time.
- Cluster them by source / cause for the blockers.
- Then analyze:
  - Identify Risks
  - Identify Likelihood & Impact
  - Root Cause Analysis
  - Reduction & Mitigation actions

Do you gather data on blockers today?

Let's Consider Variability at your Organization.

- Discuss policies or policy changes that would left or right shift lead time distribution in your organization.
- Possible risk mitigation & reduction ?
- Wider implications on service delivery?

Policies in your Organization

Left Shift Lead Time Distribution

Timeboxing meetings

Right Shift Lead Time Distribution

Infrastructure window

Freeze Period

COVID

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Wimbledon comes in on time every year
How do event planners do it?
Except 2004 when it rained on Sunday and the final was on Monday ;-)
Scheduling Wimbledon isn't an exact science!
Games last different lengths of time and weather conditions can stop play altogether but the Men's Final always happens on the 2nd Sunday.
If only we could project manage like this!

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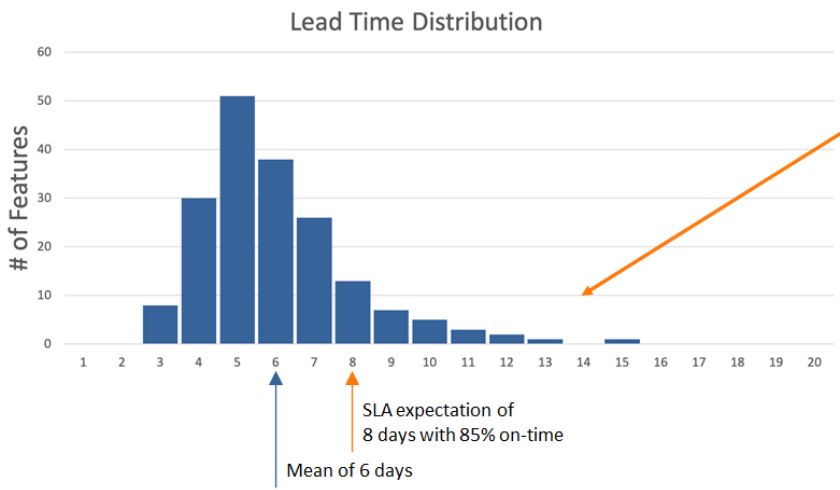

Risks often cause long lead times.

Failure demand such as quality issues
Dependencies
Expedites
Many different customers

Trimming the tail moves the mean to the left, increasing delivery rate!

Blocker Clustering

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Kanban can reveal bottlenecks. Understanding the type and location of bottlenecks informs our actions.

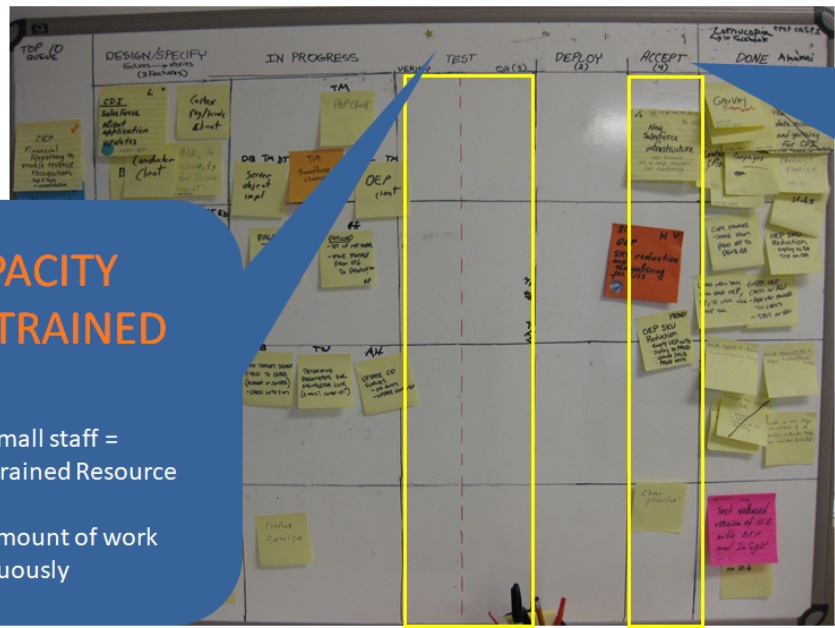
Bottlenecks are common in traffic

Theory of Constraints

- Founded by Eliyahu M. Goldratt
- Based on the premise that a system‘s throughput is limited by at least one constraint.

- The Five Focusing Steps:
  - Identify the system's constraint(s).
  - Decide how to exploit the system's constraint(s).
  - Subordinate everything else to the above decision(s).
  - Elevate the system's constraint(s).
  - Start all over!

Shared services are often bottlenecks



NON INSTANT AVAILABILITY

Product Owner is a Non-Instant Availability

Allow work to stack up with a higher WIP limit (but still limited))

CAPACITY CONSTRAINED

Testing and
Deployment: small staff =
Capacity Constrained Resource

Keep a small amount of work flowing continuously

Bottleneck should always be downstream of the commitment point

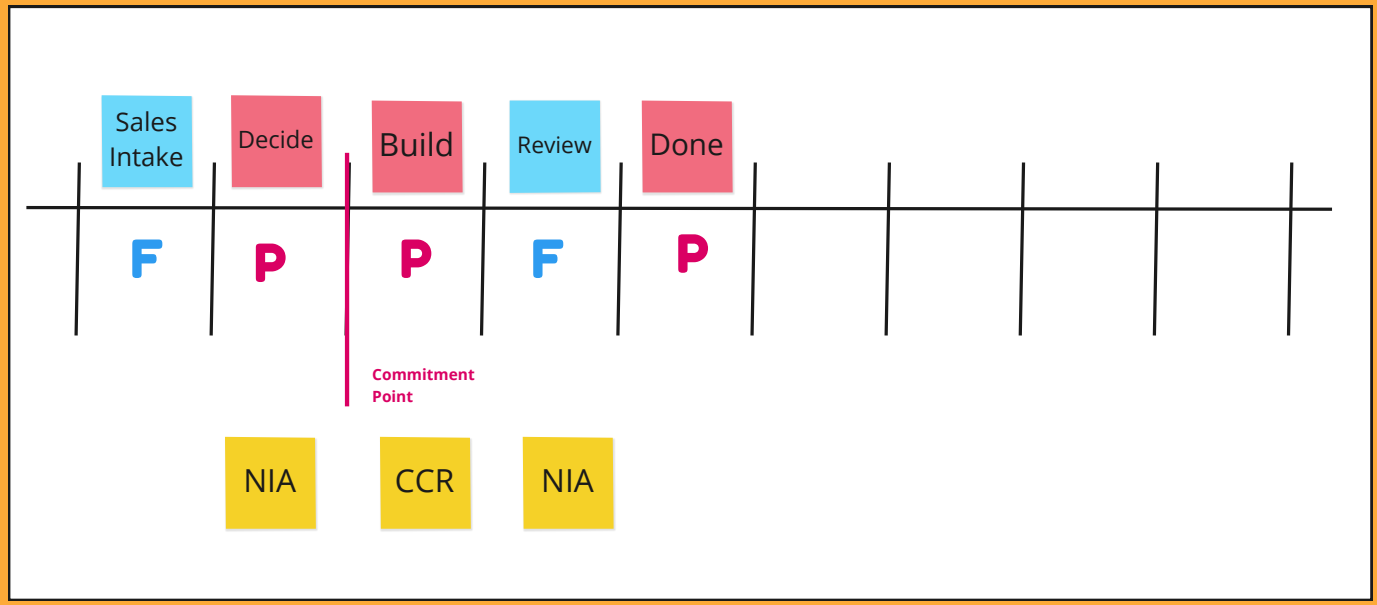
Everything upstream of the commitment point is optional and easily discarded!
Everything downstream of the commitment point is committed – not easily abandoned!

Bottleneck workers should never be asked to work on something that is optional and may be discarded. This includes any risk analysis (or estimation) that may be required to assess viability of an option.

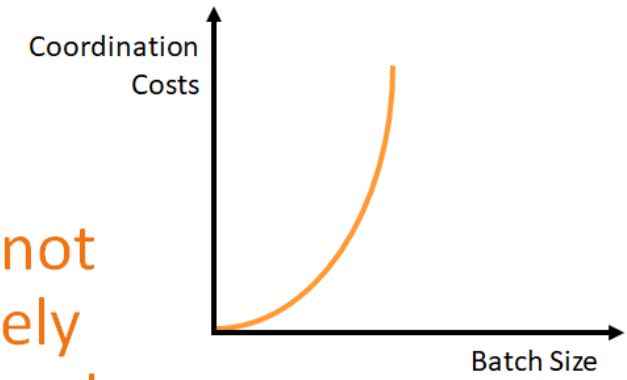
Exercise

Where are your bottlenecks?

- Let's go back to your workflow in Frame 4.10
- Where are your bottlenecks?
- Is it a CCR (Capacity Constrained Resource) or NIA (Non-Instant Availability)?



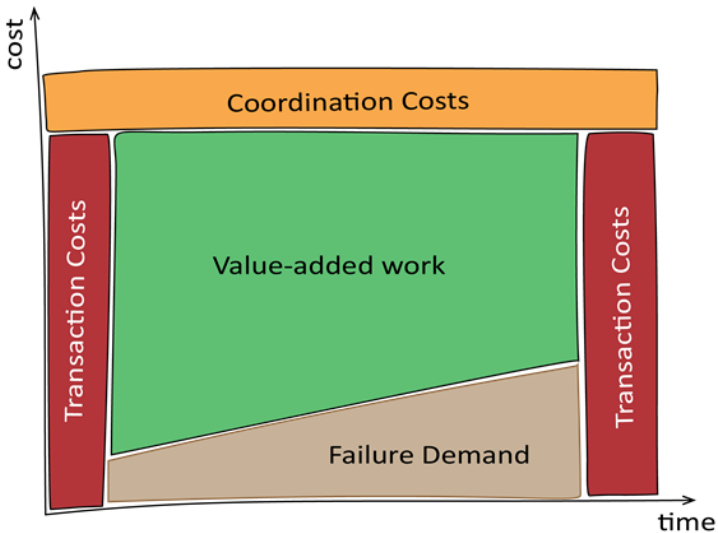
In Knowledge Work: Coordination Costs Grow Non-linearly with Batch Size!



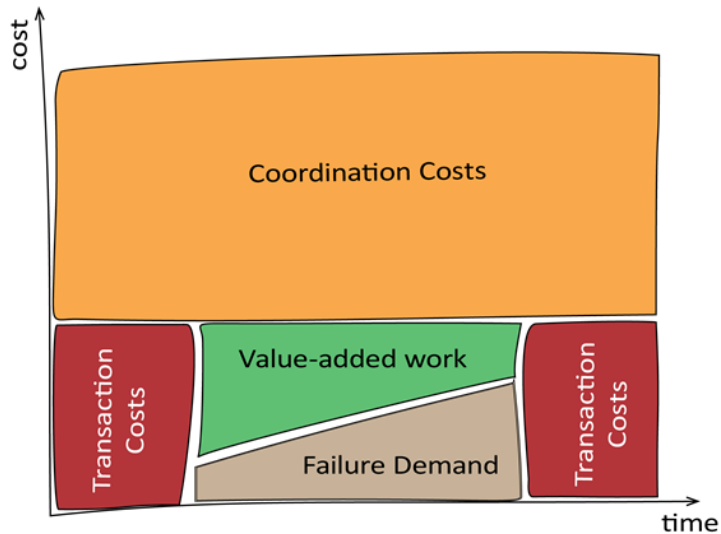
> Large batch sizes are actually not efficient but become completely uneconomical in knowledge work.

- In traditional physical industries, it is assumed that coordination overhead is either fixed or rises linearly with batch size
- However, in intangible goods, knowledge work, and creative professional services, coordination costs rise non-linearly with batch size due to increased risk and uncertainty and accumulating failure demand

A Model for Value-add vs. Waste



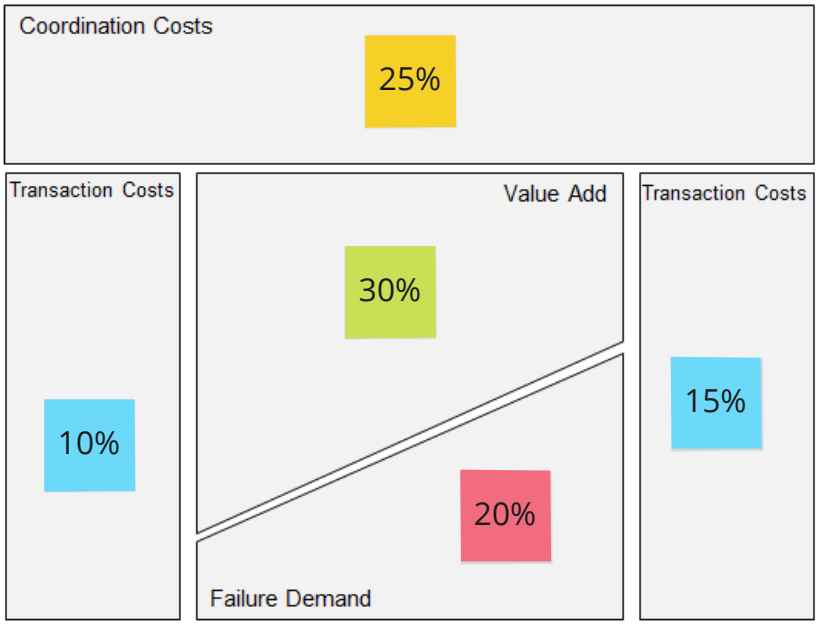
Better



Worse

Exercise

Identify Your Economic Costs



- Identify transaction costs in your project work.
- Identify coordination costs.
- How much of the total effort on projects, do you estimate is transaction or coordination costs (rather than value-added) effort?
- Estimate Failure load – internal (bugs) and external (escaped) sources.
- Draw a sketch of economic cost model based on data.

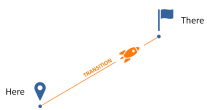
> How is Kanban so effective for successful change initiatives?

The Kanban Method

"Successful evolutionary change for your 21st century business"

In order to successfully
- respond to market change,
- survive in a rapidly changing market, and
- maintain fitness for purpose (without slow decay until a crisis punctuated by disruptive change introduces).

How we wish change worked



Traditional Change is an A to B Process

What Change Really Feels Like: The J Curve

Start with what you do now

- The Kanban Method evolved with the principle that it should "be like water" - enable change while avoiding sources of resistance
- With Kanban you start with what you do now, and "kanbanize" it, catalyzing the evolutionary process into action. Changes to processes in use will occur
- Evaluating whether a change is truly an improvement is done using fitness criteria that evaluate an external outcome

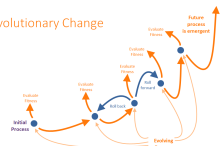
Fitness Criteria

Fitness criteria are metrics that measure observable external outcomes

Things customers or other external stakeholders value:
- Delivery time
- Quality
- Predictability
- Safety (conformance to regulatory

Metrics that qualitatively assess actual outcomes such as:
- Customer satisfaction
- Employee satisfaction

Evolutionary Change



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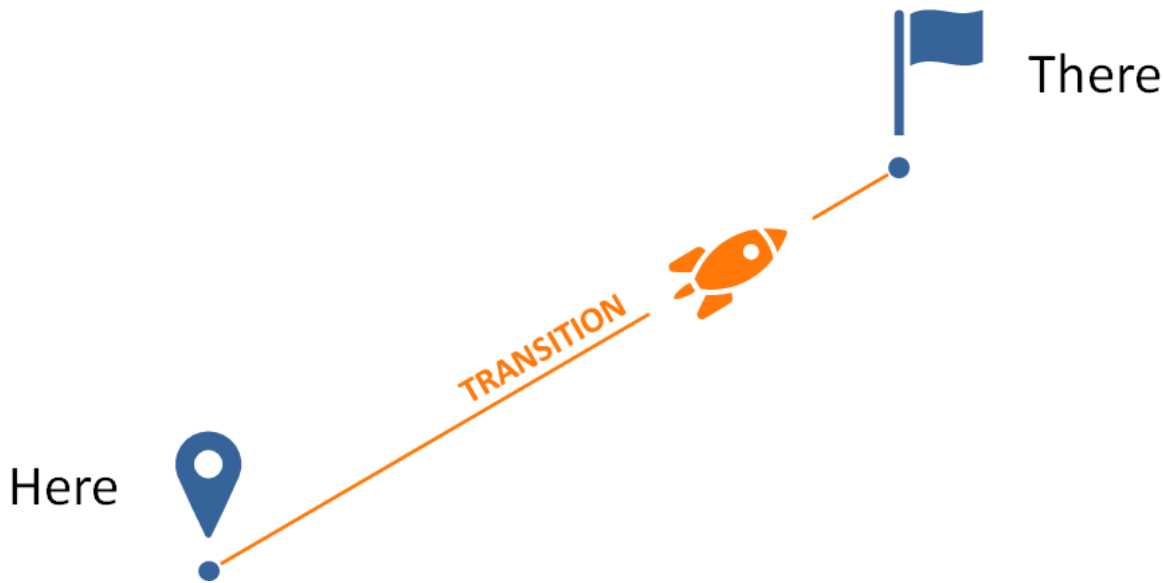

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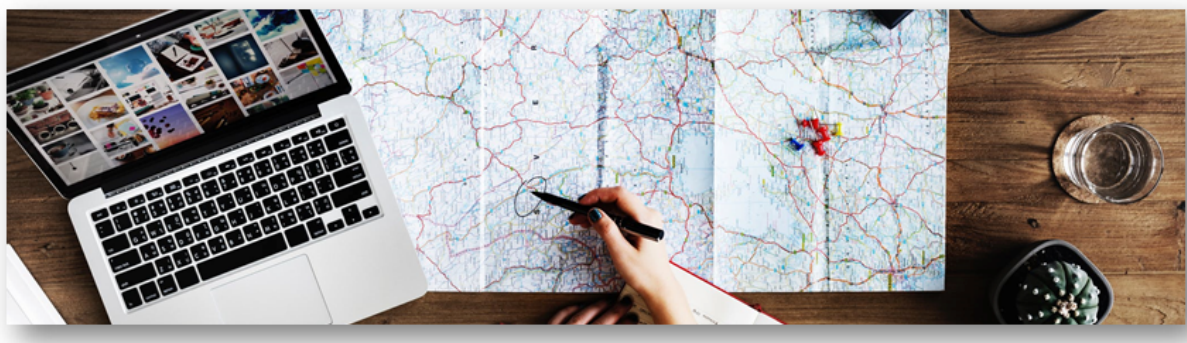

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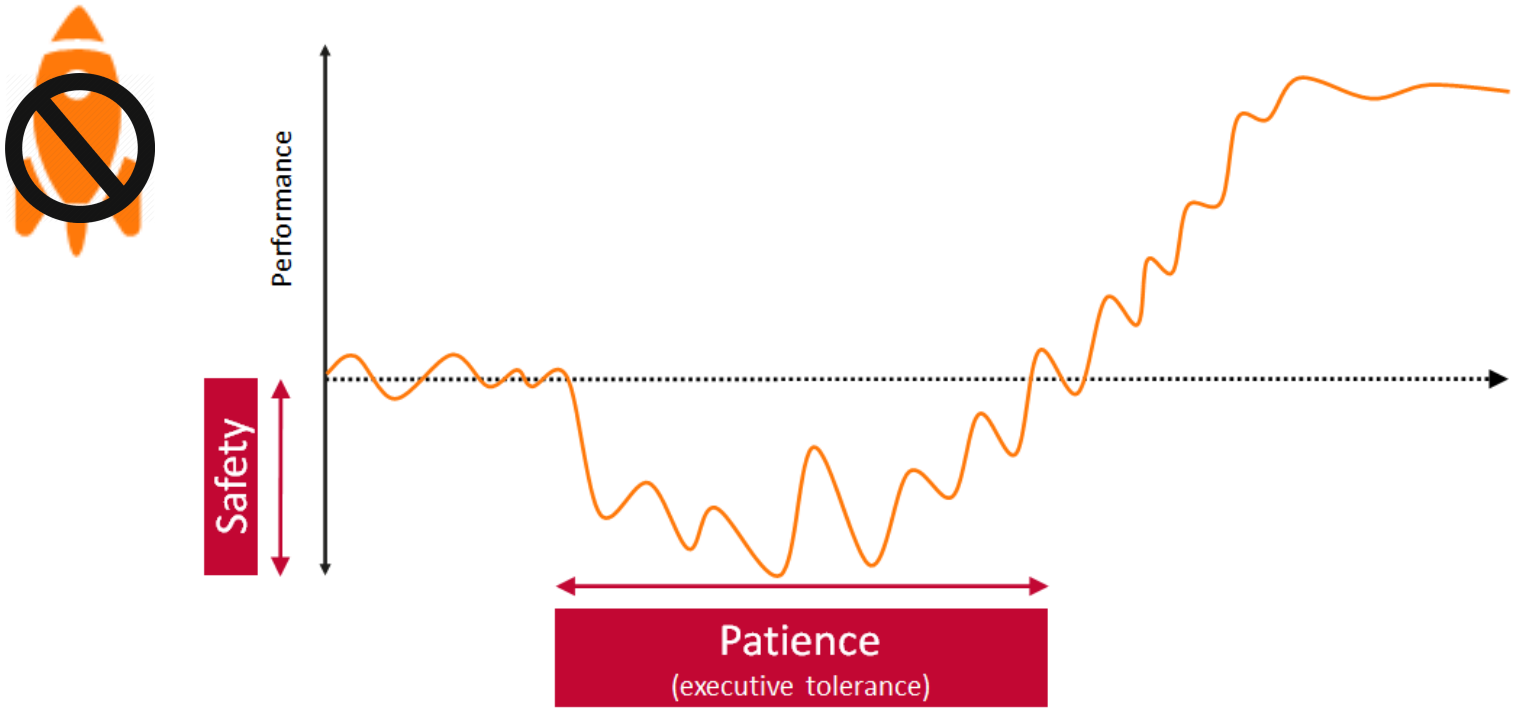

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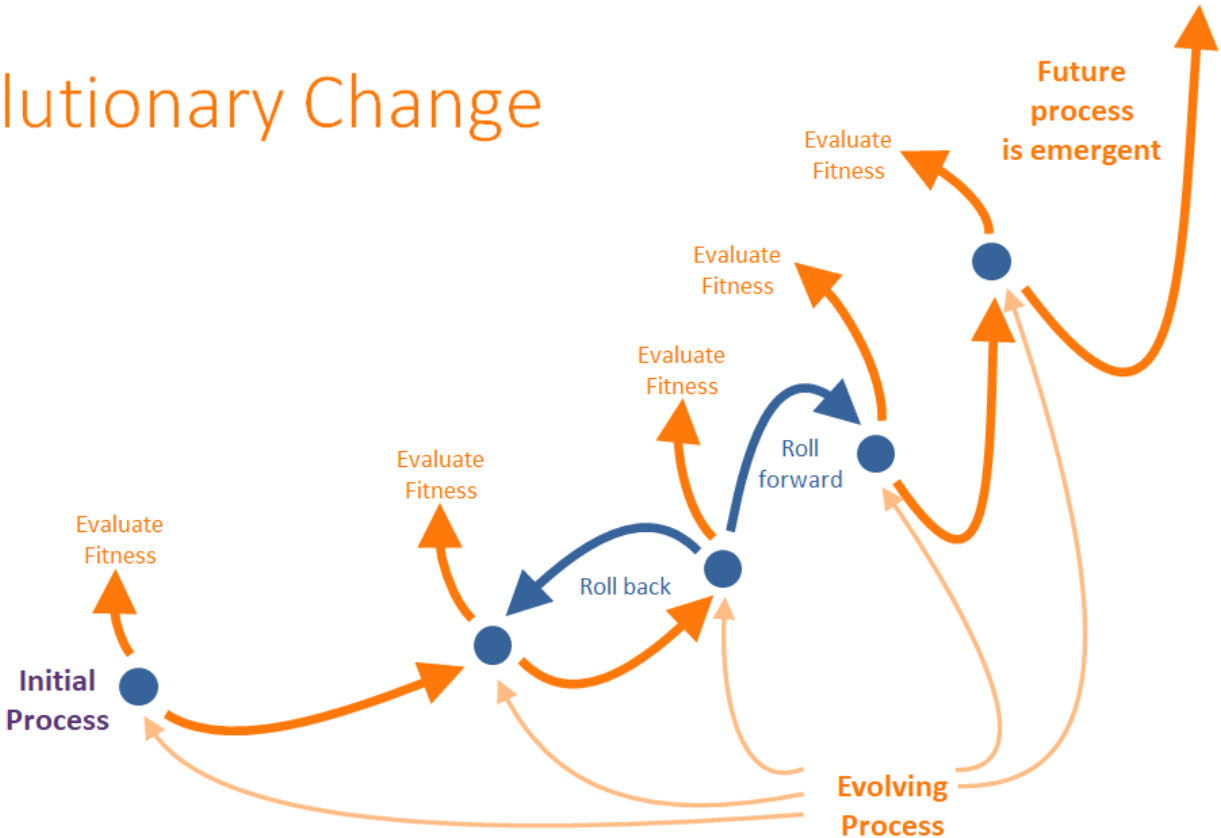
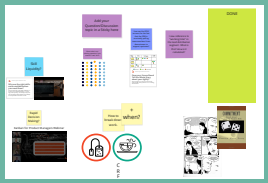



DONE
Quick Check
Continuous Improvement
Issues or Blocking Tasks
Team Retrospective Meetings
Kanban Systems Improvement
Kanban Maturity Model
Kanban Coaching Practices
Kanban Coaching Mastery
Kanban Coaching Professional

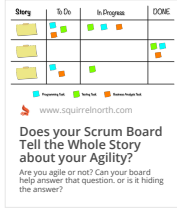
Add your Question/Discussion topic in a Sticky here

How can the SDM account for the fact that the SRM is constantly pulling team members from downstream to support upstream?

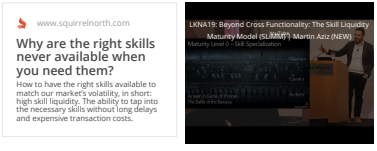
I saw reference to "working time" in the lead distribution segment. What is this? How is it calculated?

DONE

Place a dot in an existing question if you want to "vote" for it

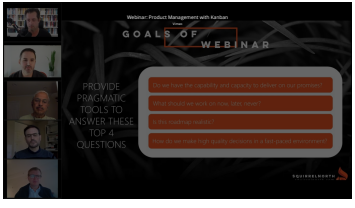


Skill Liquidity?



Rapid Decision Making?

Kanban for Product Managers Webinar



How to break down work.

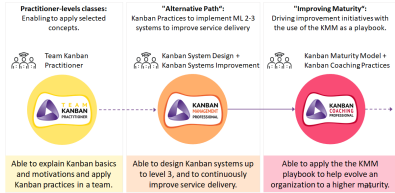
\+ when?

C
R
F

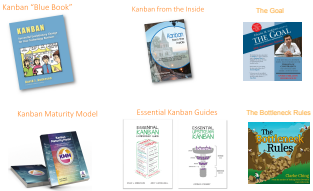
Reflections

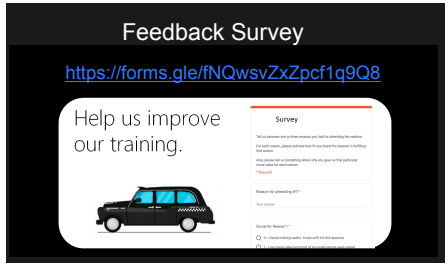
What will you do differently in your organization when you get back to your office next week?

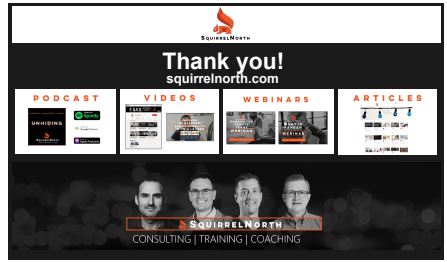
Basic Learning Paths



Books







Reflections

What will you do differently in your organization when you get back to your office next week?

Basic Learning Paths

Practitioner-levels classes:
Enabling to apply selected concepts.

Team Kanban Practitioner

Able to explain Kanban basics and motivations and apply Kanban practices in a team.

"Alternative Path":
Kanban Practices to implement ML 2-3 systems to improve service delivery

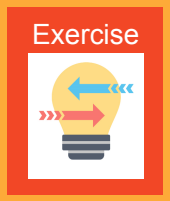
Kanban System Design +
Kanban Systems Improvement

Able to design Kanban systems up to level 3, and to continuously improve service delivery.

"Improving Maturity":
Driving improvement initiatives with the use of the KMM as a playbook.

Kanban Maturity Model +
Kanban Coaching Practices

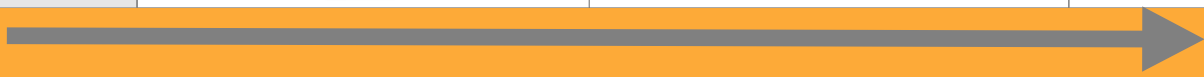
Able to apply the the KMM playbook to help evolve an organization to a higher maturity.



Sources of Delay (in your company)

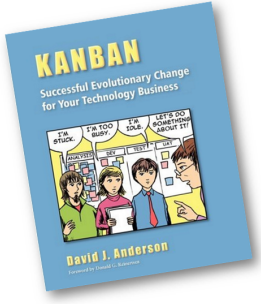
1. Identify queues - where do work items queue in your service?
2. Identify dependencies - do work items in your service depend on unique specialist skills? other services in your company? external vendors?
3. Describe queues - are they first-in-first-out, dynamic selection/prioritization? several classes of service? some work items skip quickly, others wait for a long time?
4. Describe each dependency - how many (or what %) work items does it affect? How much does it add to the lead time? Can you predict, control or influence this duration?
5. Take action - can you reduce or limit the queues? Can you reduce the variation of queuing time? What are the implications to your customers and other activities in your process?
6. Take action - Can you reduce or limit the duration of delays due to dependencies? Can you decrease the number (or %) of work items affected by a dependency? Would that change the risk in delivering the work? Can you imagine the circumstances were avoiding a dependency (and the delay it causes) would be acceptable?

Type of delay	Identify	Describe	Take Action
Queues	Ready to test Ready to deploy Up Next?	Dev, code review and UT done all done holding to implement	
Dependencies Internal to your service external to your service, internal to your business External to your business	holistic testing (need to wait for all features to be done knowledge constraint Test data set-up Business isn't ready with requirements funding Business sign-off AOS conflicting priority	business sign-off, waiting for approvals.. AOS- must accept transition	

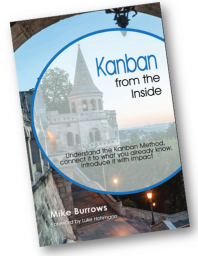


Books

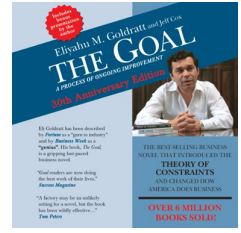
Kanban “Blue Book”



Kanban from the Inside

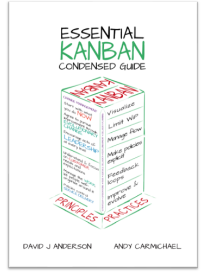


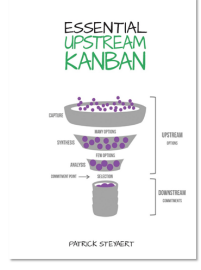
The Goal



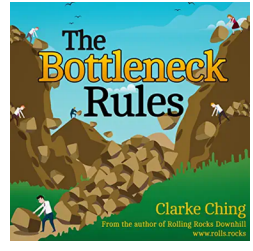
Kanban Maturity Model

Essential Kanban Guides





The Bottleneck Rules



Feedback Survey

https://forms.gle/fNQwsvZxZpcf1q9Q8

Help us improve our training.

Survey

Tell us between one to three reasons you had for attending the webinar.

For each reason, please indicate how fit you found the session in fulfilling that reason.

Also, please tell us something about why you gave us that particular score value for each reason.

* Required

Reason for attending #1? *

Your answer

Score for Reason 1 *

- 0 - I found nothing useful. It was unfit for this purpose
- 1 - I got some value but most of my expectations were unmet

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Thank you!

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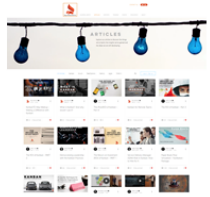
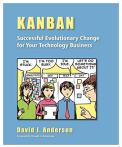
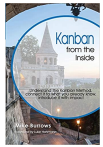


CONSULTING | TRAINING | COACHING

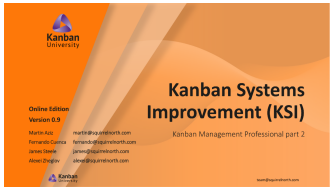
Case Studies

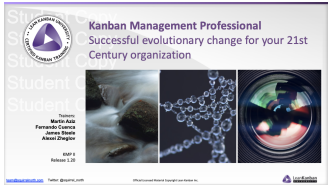
Books





Slides





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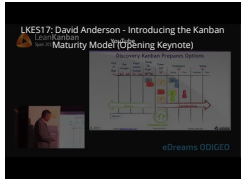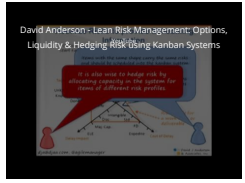
Some of these videos are included here for "historical" reference. Guidance might have evolved and been refined since they were recorded.