



#### Effective Middle Management

Presenter David J. Anderson

Agile New England Waltham MA January 2016







# NORTH AMERICA · -SAN DIEGO | MAY 16-20, 2016 Lean Kanban North America

Lean Kanban North America ESP Executive Summit Kanban Leadership Retreat





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# The Alternative Path to Agility

@LeanKanbanNA | #LKNA16



#### Lean**Kanban** North America 2016

May 16-18, 2016 Catamaran Resort Hotel & Spa Mission Beach, San Diego

#### Join us in beautiful San Diego for Lean Kanban North America 2016

You have more capacity than you think! Kanban enhances visibility, quality and performance. The result is better predictability and faster delivery with better business agility.

> Register now at lkna16.leankanban.com

#### 2 Days of Sessions and Wednesday Workshops

LKNA16 topics include:

- Getting started with Kanban
- Taking your initiative to the next level
- Kanban metrics
- Managing organizational change Project Management with Kanban
- Kanban in highly governed environments Kanban in non-IT domains
- plus...the Brickell Key Awards

#### Kanban Leadership Retreat

May 18-20 Estancia La Jolla Hotel & Spa - La Jolla

Join kanban trainers, managers, change agents, and thought leaders in beautiful La Jolla. Starting the evening of May 18, connect on some of the most advanced and innovative concepts in the field of Kanban in a small, intimate setting.

#### **Enterprise Services Planning Executive Summit**

May 18 The Lodge at Torrey Pines - San Diego

Get immersed in the new approach to coordination and planning across your enterprise. The ESP Executive Summit will change how you make decisions about portfolios, strategic direction, development, and daily activities.

North America 2016





Enterprise Services Planning

EXECUTIVE SUMMIT

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#### **Motivation for adoption? Kanban has agendas**

#### **Managerial Motivator**

#### Senior-level

- Lead the business (strategy and positioning)
- Confidence they can deliver on strategic goals
- Legacy (long term survival)

#### Mid-level

- Up-managing answer the hard questions with confidence
- Down-managing make difficult decisions with confidence

#### Line-level & Individual Contributors

- Relief from abusive environment
  - Overburdened
  - Quality suffers
  - Low job satisfaction

Kanban Agenda

Survivability

#### Service-orientation

(and customer focus)

#### Sustainability





# What are they afraid of?

#### Manager

#### Fear

• Senior-level

• Mid-level managers lie to me. There is no transparency

Mid-level

- Senior leaders over-react. I don't trust them with information
- Line managers & workers can't be trusted to deliver on their promises
- Line-level & Our bosses constantly set us up Individual Contributors for failure

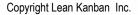






# In 2009 Barack Obama inspired us to...





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#### In 2009 Barack Obama inspired us to...





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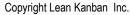
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#### 22<sup>nd</sup> November 2015









# Youth word of the year (2015)

# Finalist...

#### merkeln (verb)

# to obfuscate & delay in order to avoid making decisions



# Sadly it didn't win, losing out to...

**Smombie** (noun) smartphone zombie



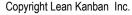


# Or perhaps as a noun ???...



- Ein mittlerer Leiter in einem deutschen Unternehmen
- Merkelmeister (noun, masculine)
  meaning a corporate
  bureaucrat who obfuscates &
  delays in order to avoid
  making decisions







#### ESP's Agenda...

# Kein Merkeln im Büro !!!









# **ESP** makes middle-managers effective!

# Der Merkelmeister er ESPler

#### Kein Merkeln im Büro !!!



- **Up-manage** answer hard questions with confidence
- Down-manage make difficult decisions with confidence









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#### You are part of a professional services business!

Professional Service organizations build intangible goods

An ecosystem of professionals providing **interdependent services**, often with complex dependencies.







#### The challenge of professional services businesses



A constantly changing external environment has a ripple effect across your entire business ecosystem

Priorities change and required capability & service levels rise in response to competition, disruptive market innovation & changes in customer tastes







Do we have capacity to do everything we need to do?

# What should we start next?

Will it be delivered when we need it?





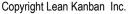


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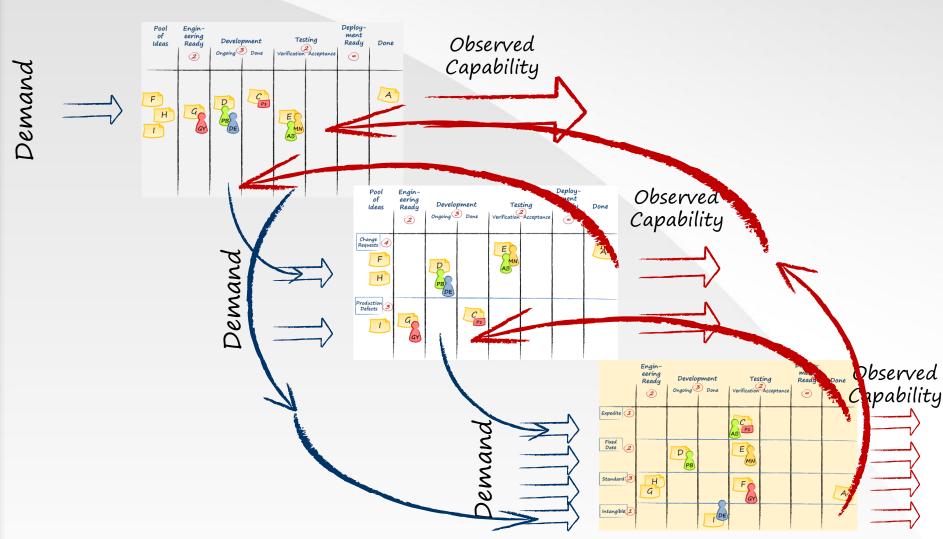
If we delay starting something, will the capacity be available when we need it?

How many activities should we have running in parallel? How will dependencies affect our ability to deliver?







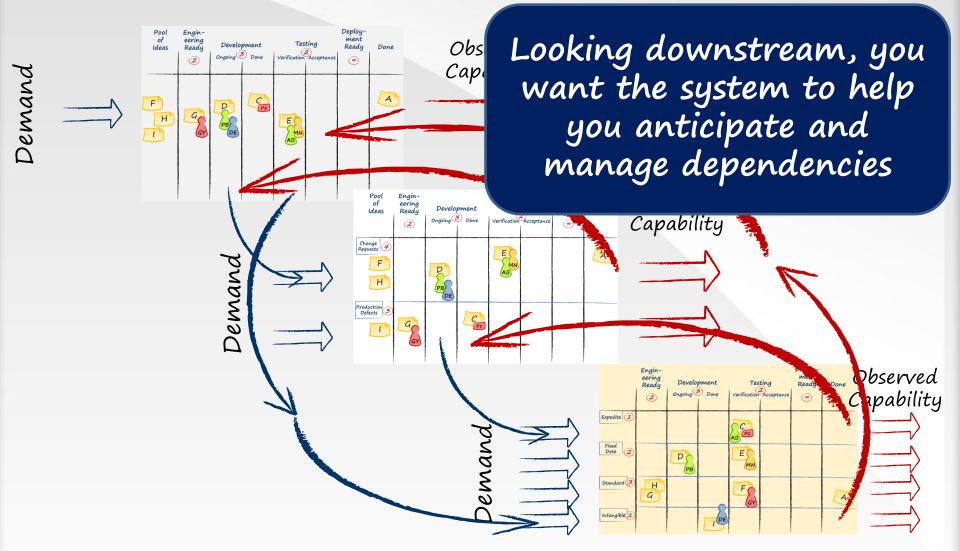






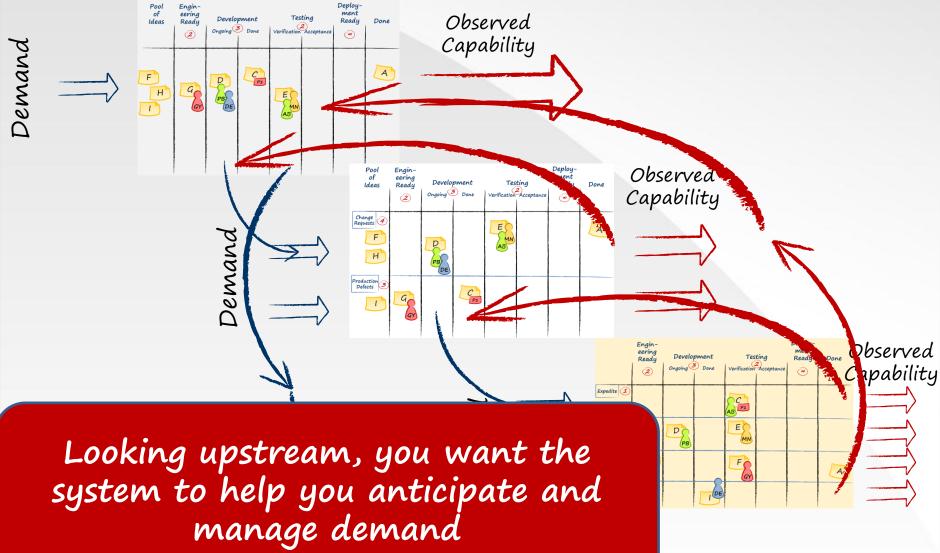
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Combine the two, and across the organization you smooth flow endto-end and help keep demand in balance with overall system capability

and







Enterprise Services Planning (ESP) is an enterprise-wide management solution that leverages Kanban\* to improve each service within your business.

> \*Kanban is a way to organize and manage work. It improves service delivery speed & predictability through a combination of limiting work-in-progress & deferred commitment

> It uses visual management and Lean techniques such as limiting the amount of work in progress, and probabilistic forecasting.

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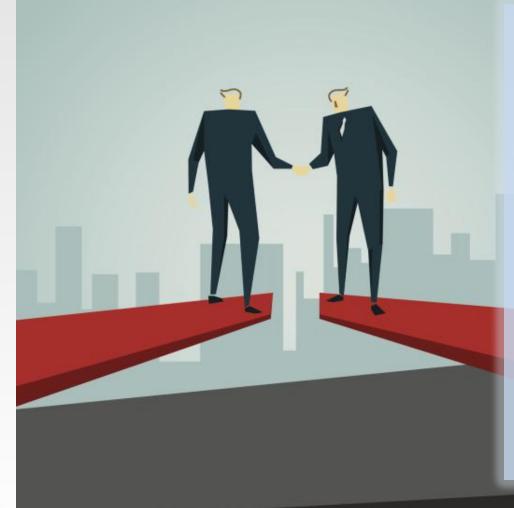
Kanban helps to balance demand with capability.

Balancing demand and capability = improved flow. Improved flow = Improved predictability.





# **The goal of Enterprise Services Planning**

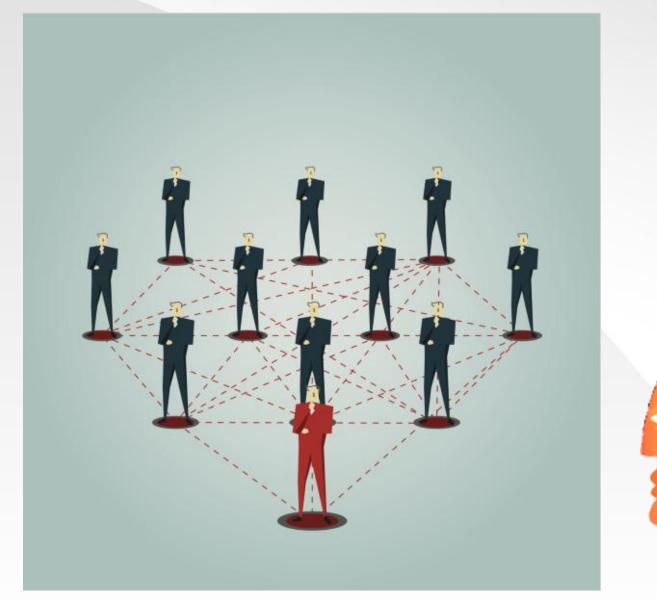


The goal of Enterprise Services Planning is to pick...

- The Right Things
- At The Right Time
- Done The Right Way
- With Appropriate Risk Exposure

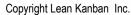














#### Manufacturing

1947 – Kanban 1964 & 1975 – MRP



•••





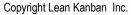
Manufacturing

1947 – Kanban 1964 & 1975 – MRP

Professional Services

2004 – Kanban 2015 – ESP







Manufacturing

1947 – Kanban 1964 & 1975 – MRP

Professional Services

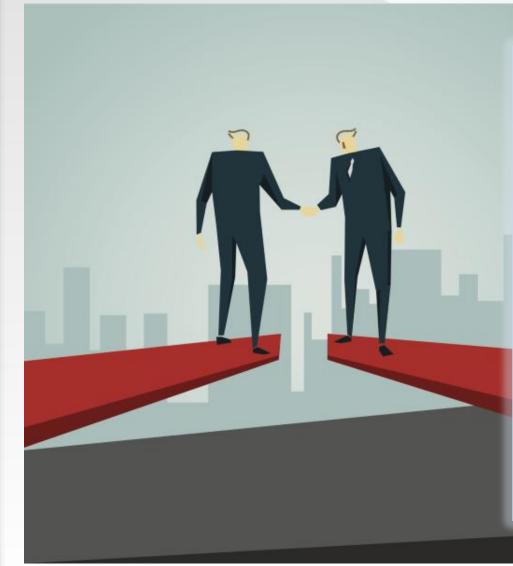
2004 – Kanban 2015 – ESP

ESP is "MRP for professional services". ESP is for managing capacity & scheduling intangible work.

ESP uses algorithms enabled with data from analysis of the work requests, our existing capability, and knowledge of customer expectations, to make recommendations







#### Planning involves...

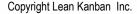
- Scheduling
- Sequencing
- Selecting
- Commitment
- Anticipating & Managing Dependencies
- A Risk Management
- Understanding what is essential based on...
  - Business strategy
  - Fitness for purpose





# Risk Assessment (for scheduling, sequencing, & selection)

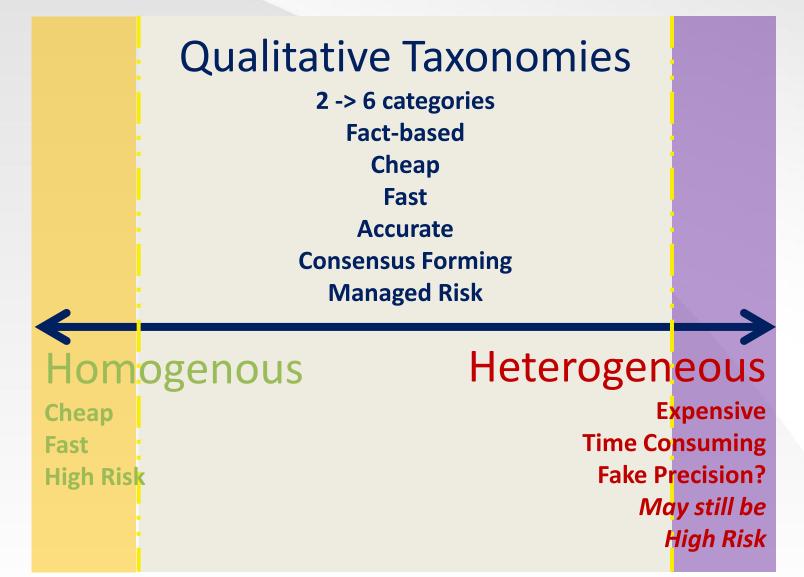




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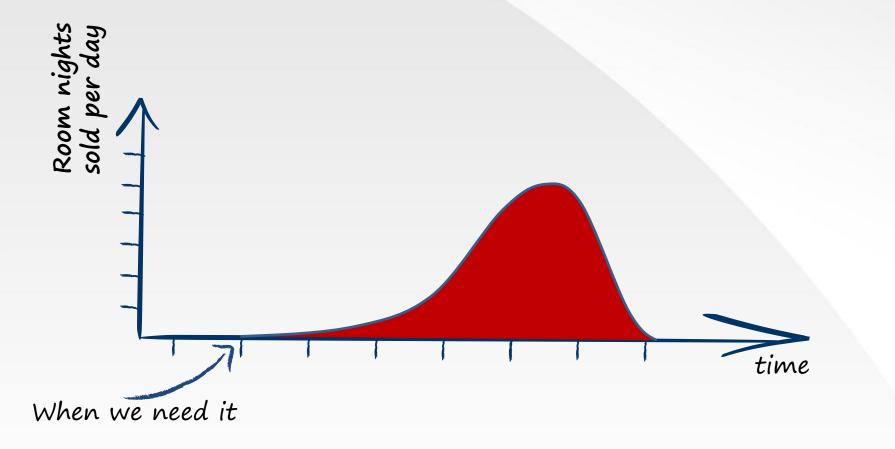


#### A middle-ground in effective Risk Management



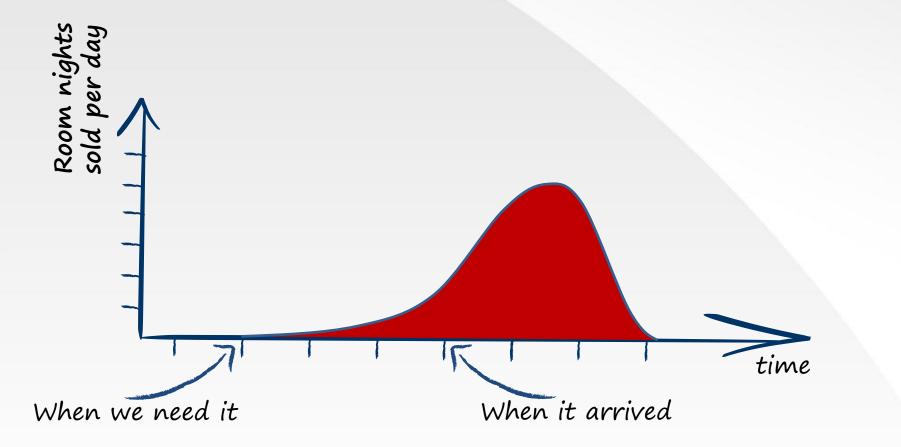






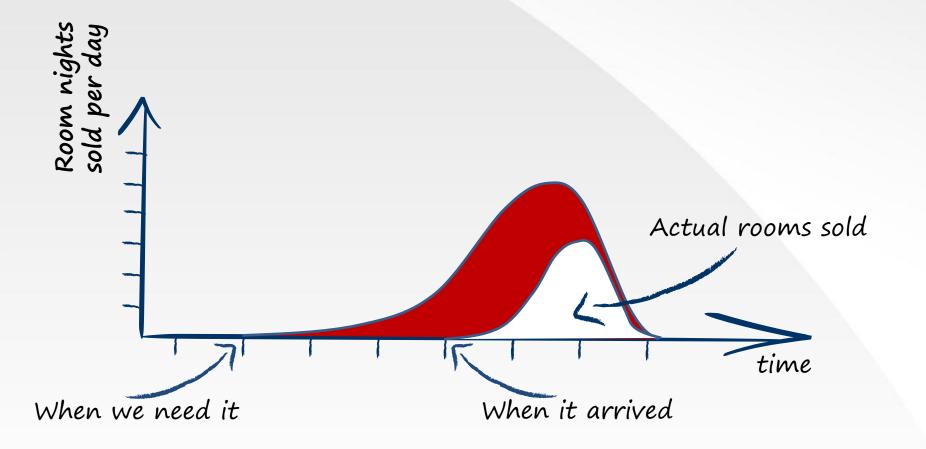






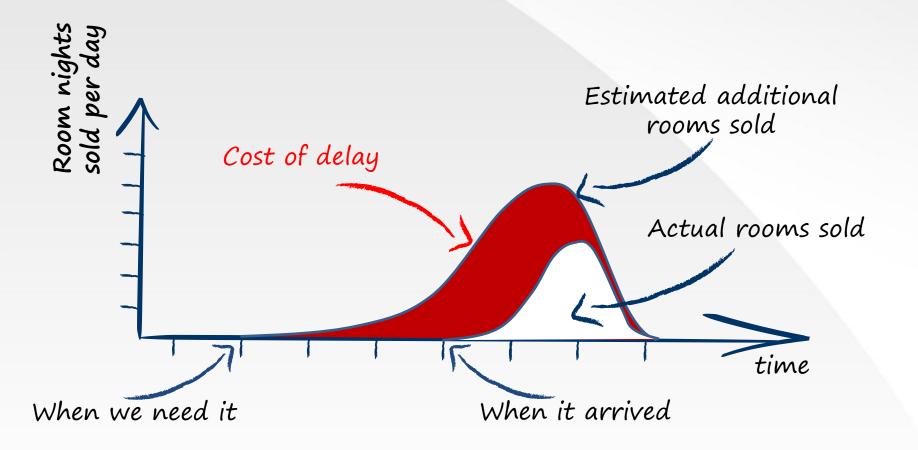








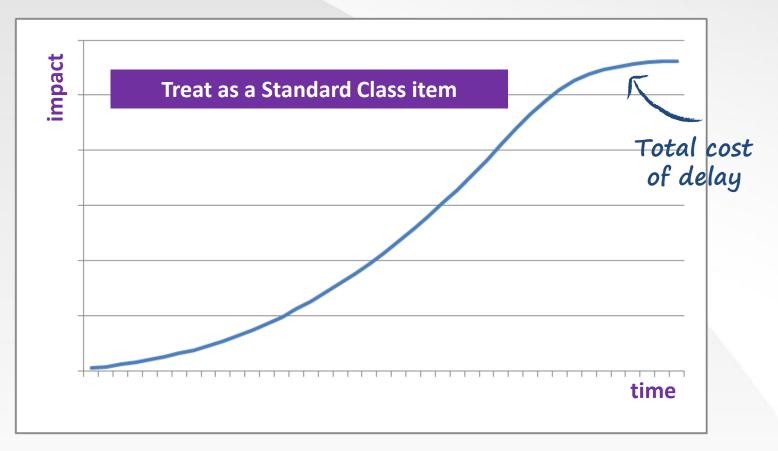








#### **Cost of Delay based on utility function sketches**



Cost of delay function for an online Easter holiday marketing campaign delayed by 1 month from mid–January (based on diff of 2 integrals on previous slide)

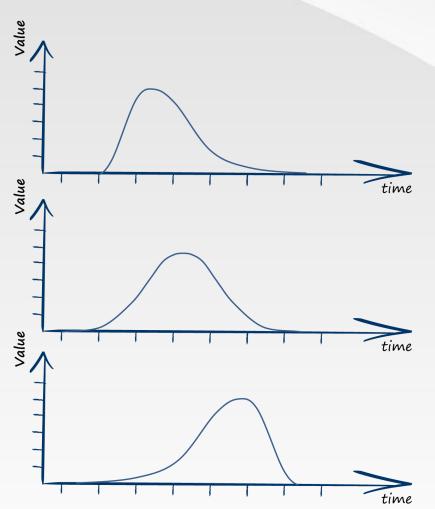


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#### **Utility Function Taxonomy**



#### **Utility Function Shape**

**Front-loaded** – Most of the value is realized early in the lifespan of the product with a long residual tail

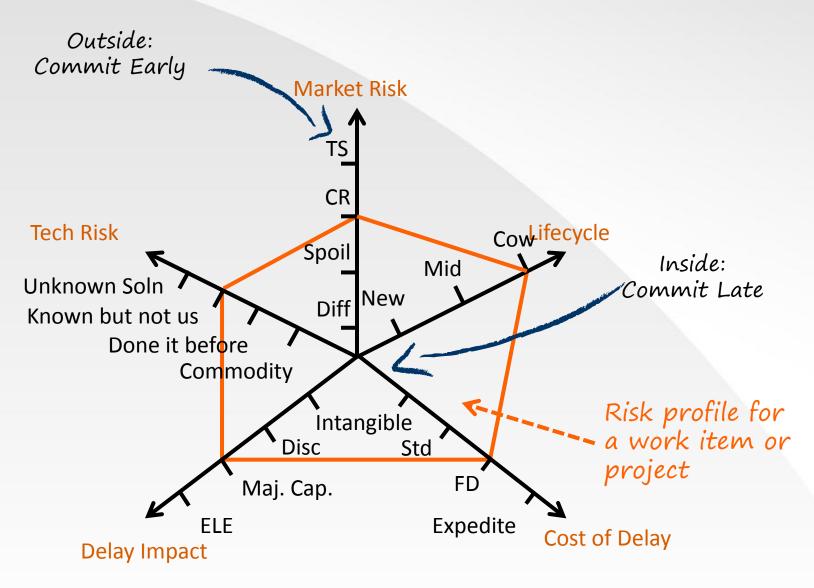
**Bell curve** – Most of the value is realized in the middle of the lifespan with slow initial uptake and a somewhat symmetrical tail off

**Back-loaded** – Initial take-up is slow with value realized close to a natural end-date in the product lifespan





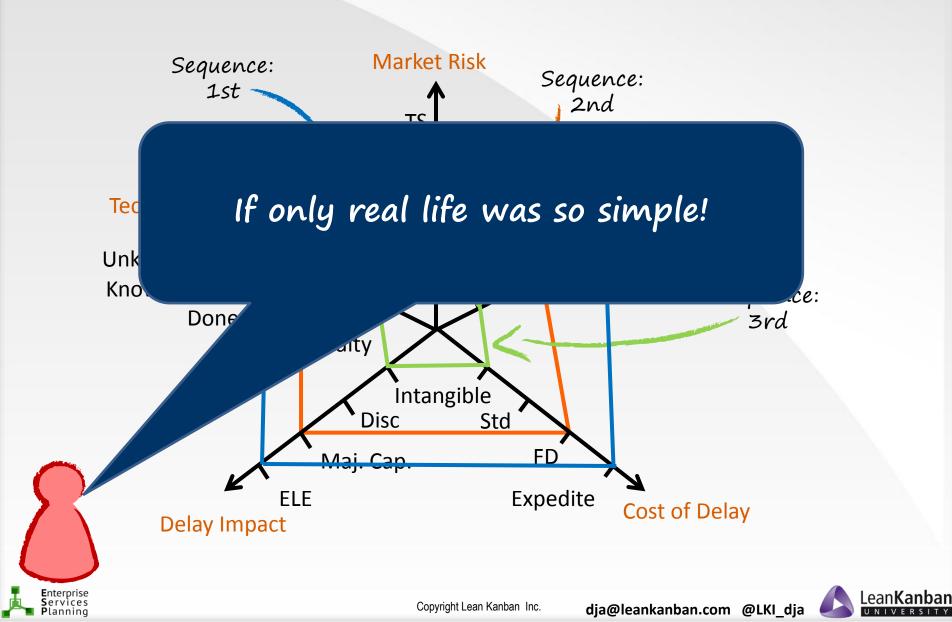
#### **Visualize Risks to provide Scheduling Information**



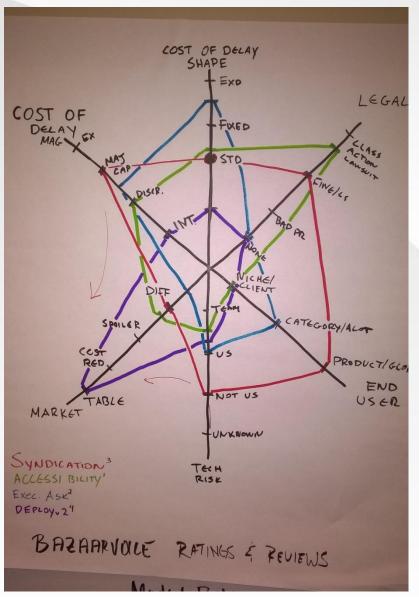




#### **Scheduling & Sequencing**



#### **Custom Profile Contains Narrative**







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#### **Custom Profile Contains Narrative**

COST OF DELAY SHAPE

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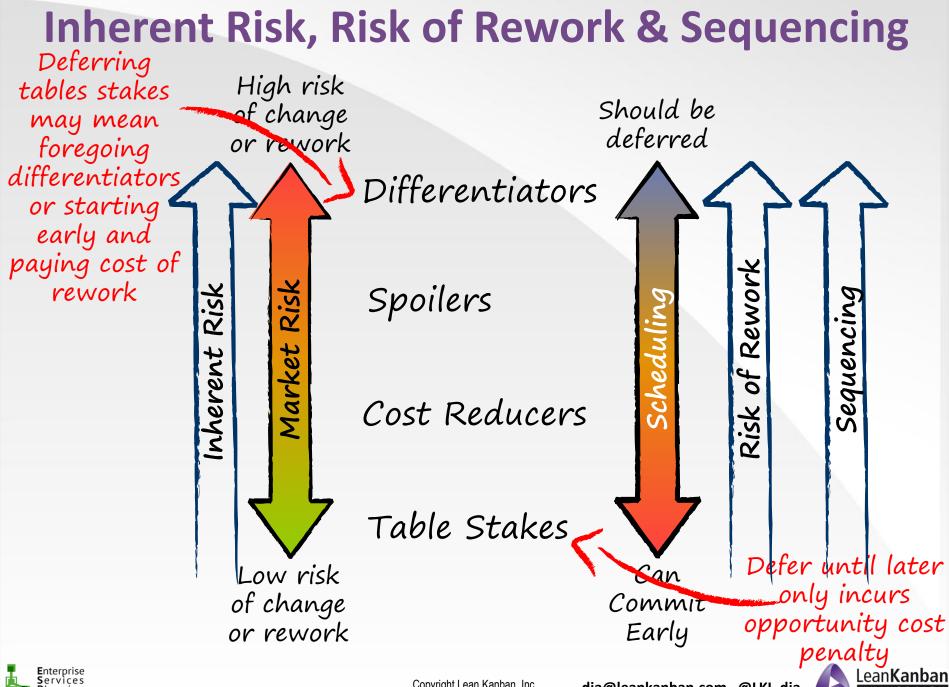
Our CEO has requested we do the blue project. Which one do we postpone?

The purple project is important but can be delayed with little penalty.

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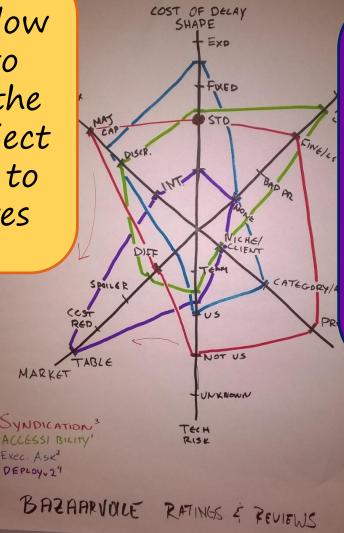


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#### **Revisiting the portfolio options**

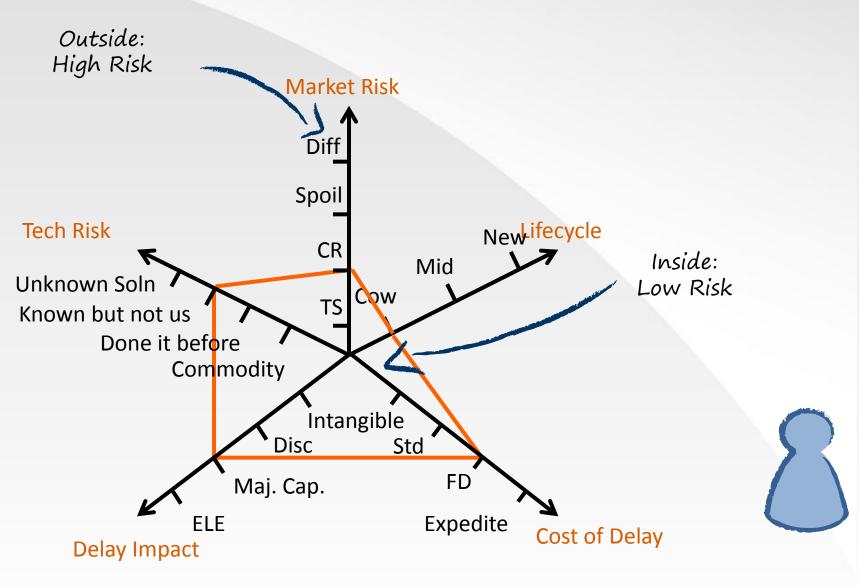
There is a low penalty to deferring the purple project compared to alternatives



The purple project remains important. We may need to forgo something else later in order to insure it is completed

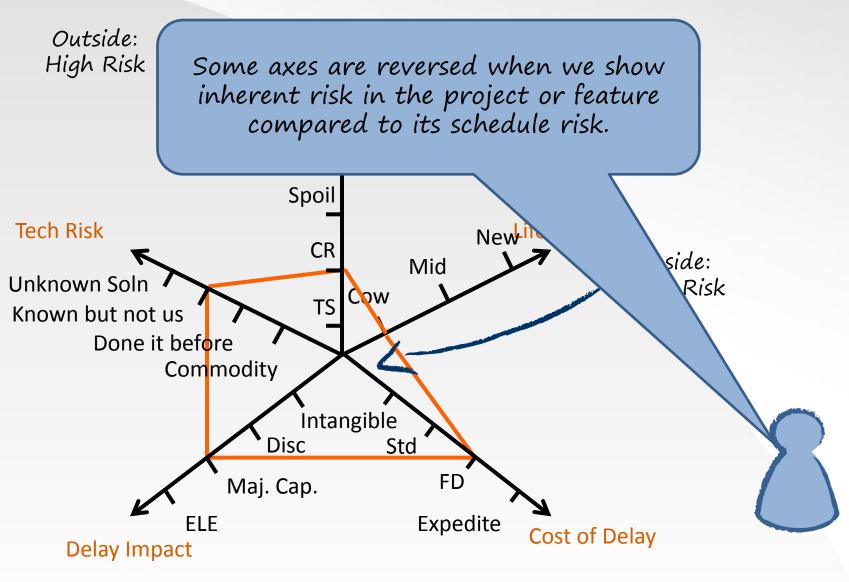






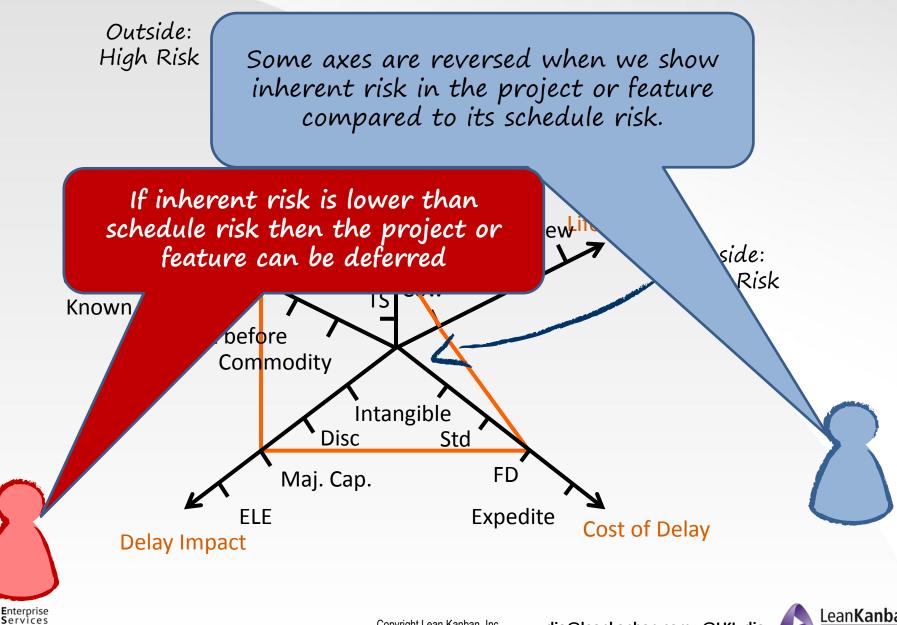












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Outside: High Risk

Known

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Some axes are reversed when we show inherent risk in the project or feature compared to its schedule risk.

If inherent risk is lower than schedule risk then the project or feature can be deferred

Where inherent risk is greater than schedule risk, deferring only works if other information gathering is happening, creating an embedded option

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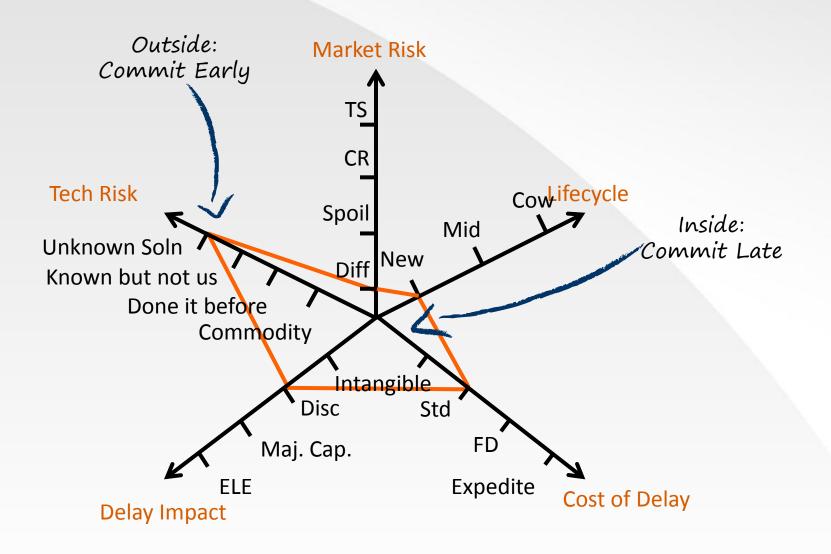
Cost of Delay

side:

Risk



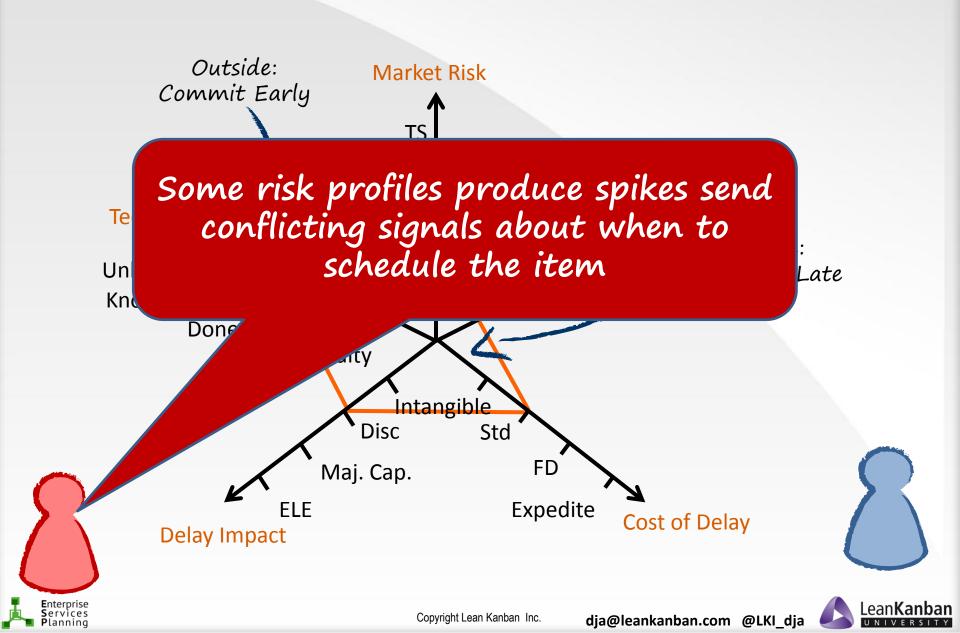
## What if a profile sends conflicting signals?



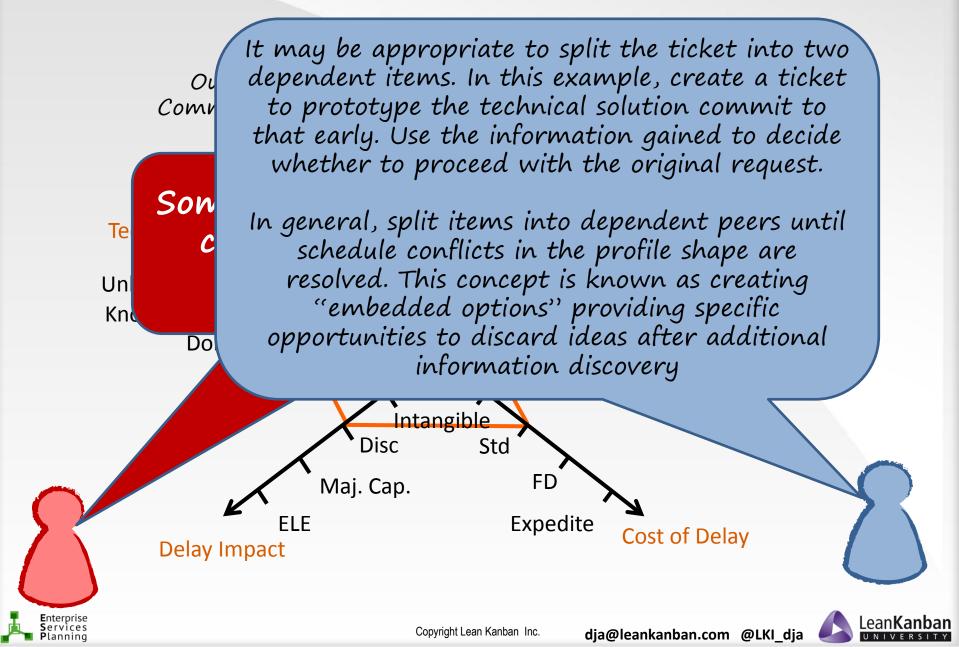




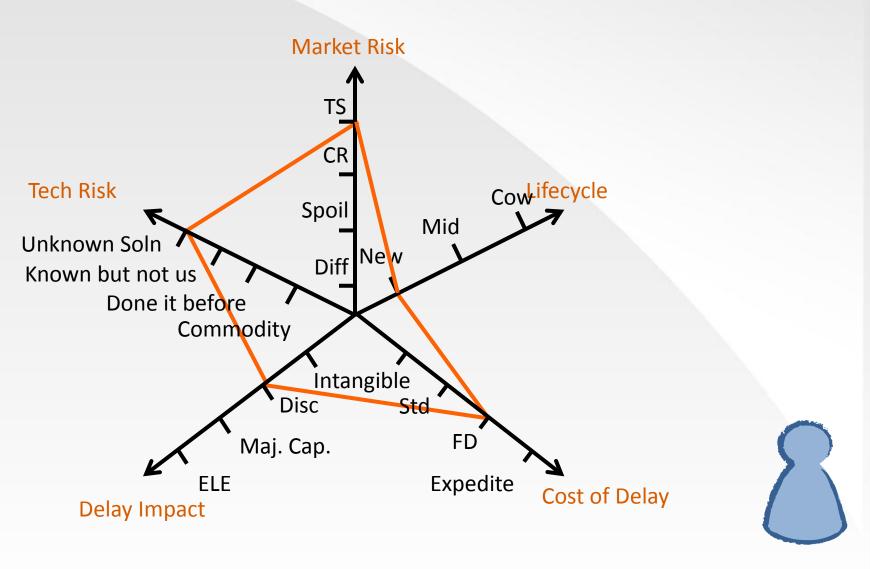
### What if a profile sends conflicting signals?



### What if a profile sends conflicting signals?



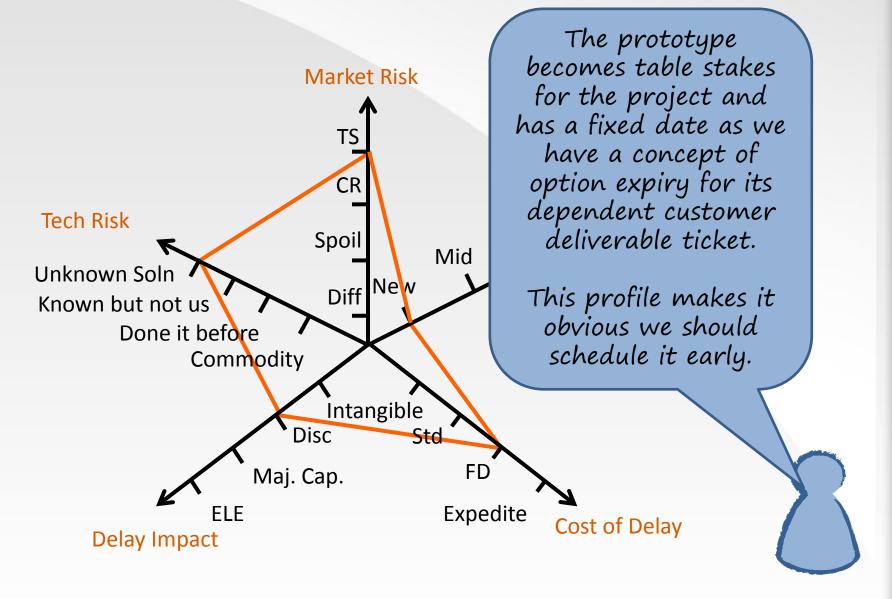
#### **Risk profile for prototype**





Lean**Kanban** 

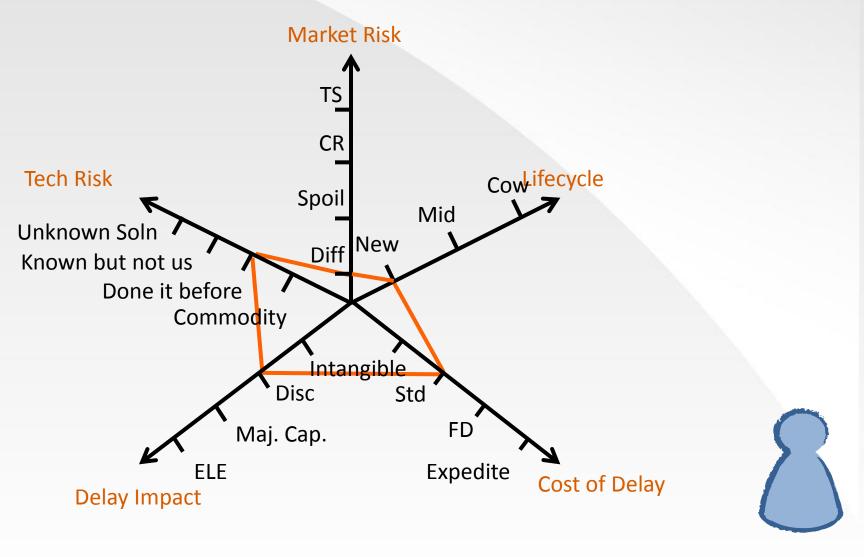
#### **Risk profile for prototype**







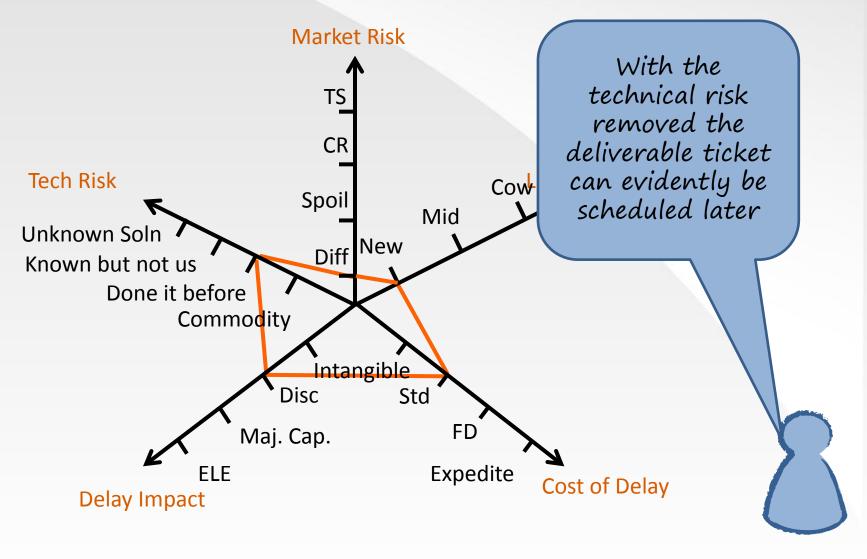
## **Risk profile for deliverable functionality**





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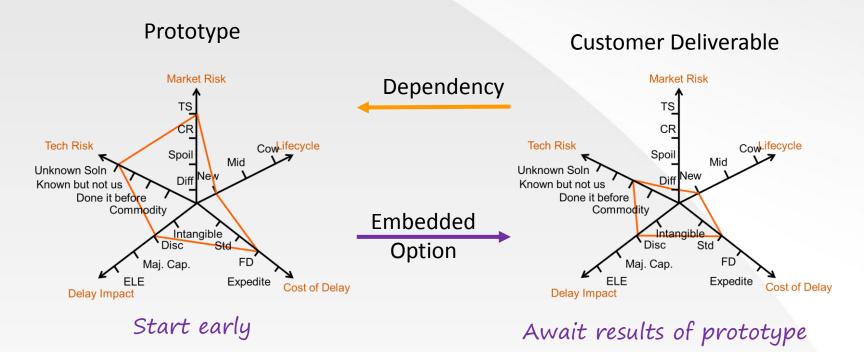
## **Risk profile for deliverable functionality**







## **Embedded options enable us to manage risk**



Discard if poor results, else If good results, defer until as late as possible

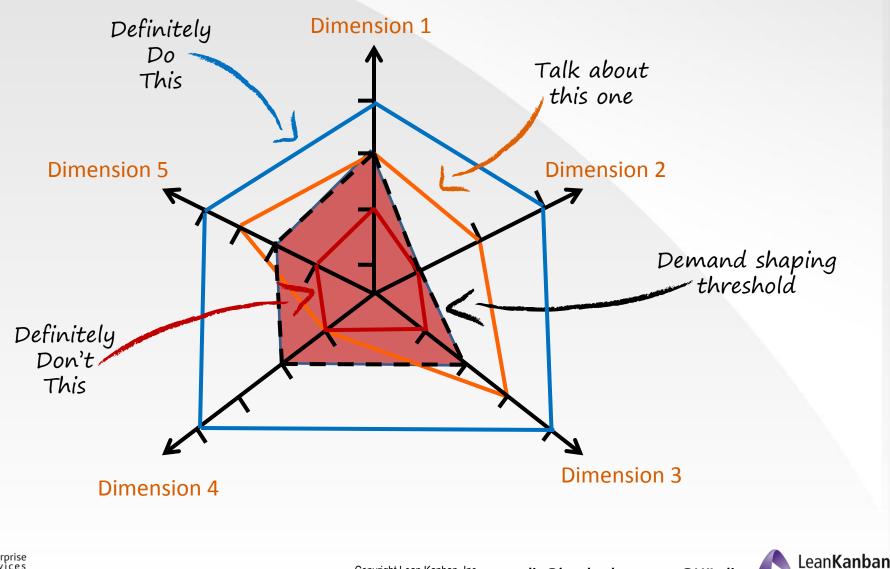


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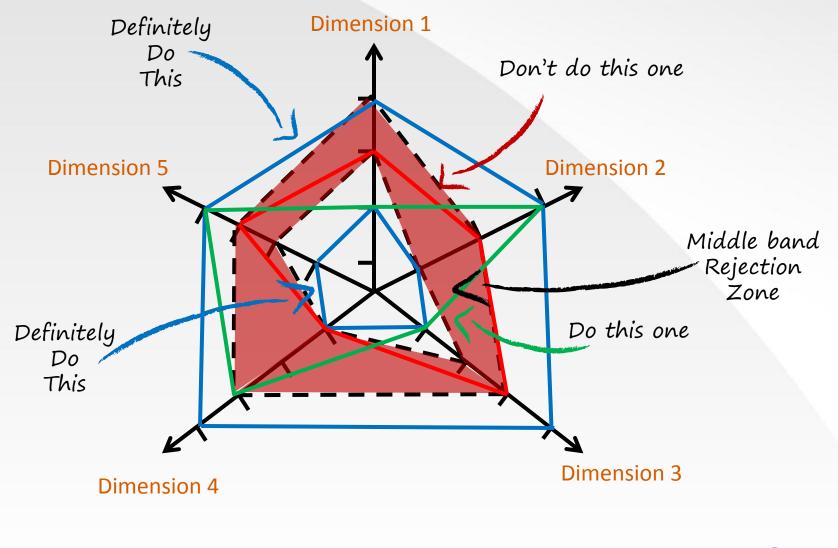
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#### Demand Shaping Threshold (using inherent risk)





#### **Doughnut Demand Shaping Threshold** (using a barbell strategy in each risk dimension)



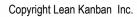
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# Forecasting

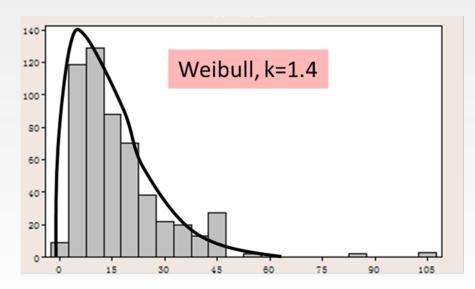




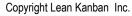
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#### Lead Time & Weibull Distributions

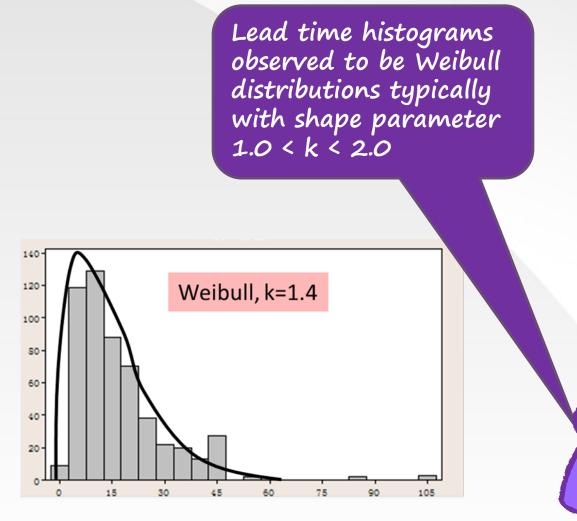




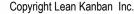




#### Lead Time & Weibull Distributions

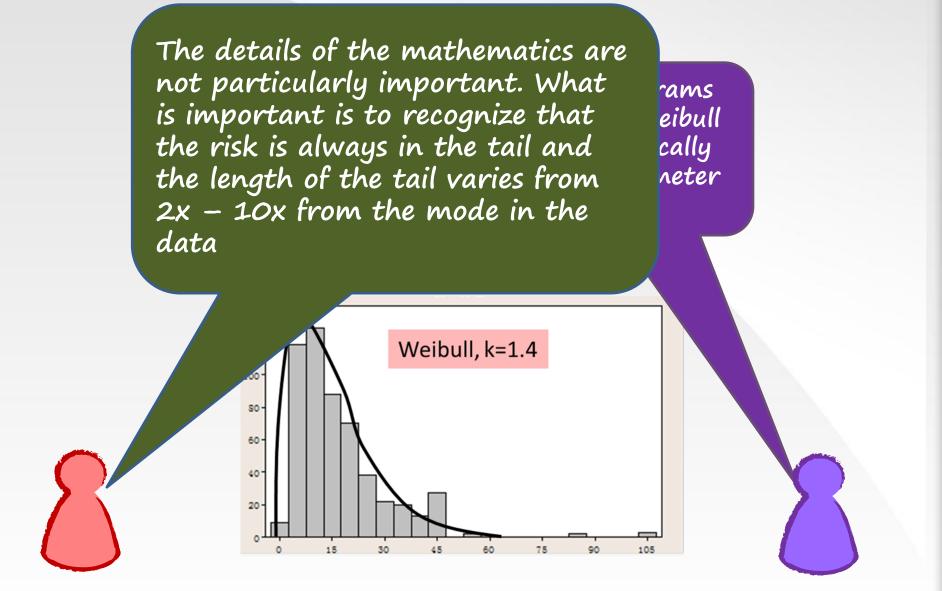








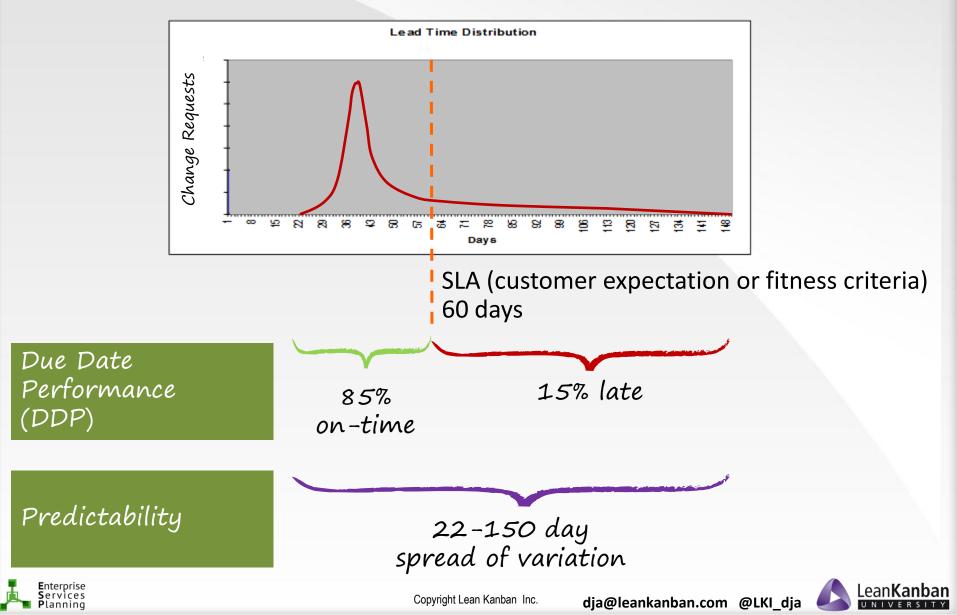
#### Lead Time & Weibull Distributions







#### Use Lead Time Distribution to Evaluate Service Delivery Effectiveness



#### **Forecasting methods**

ESP relies on two types of forecasting approaches

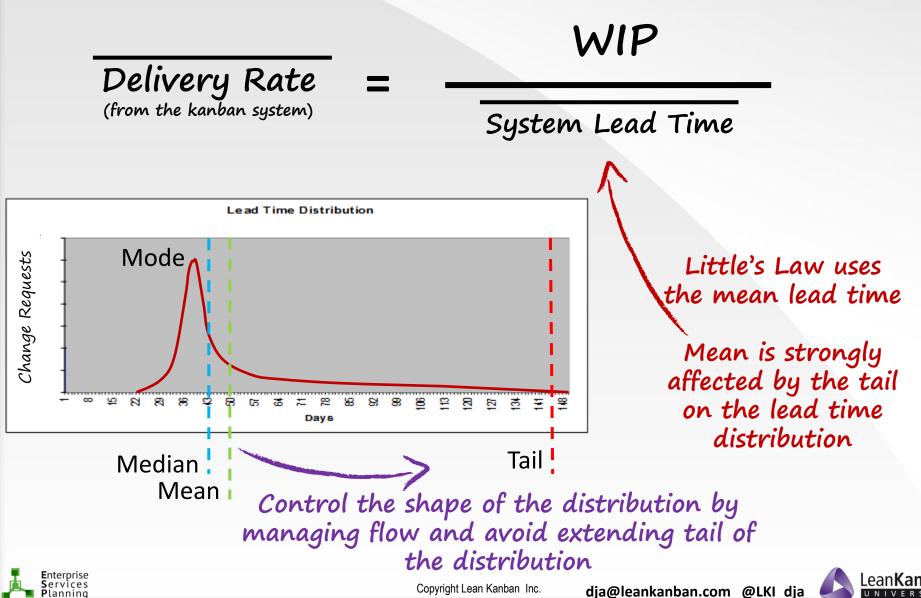
- Reference class forecasting
- Monte Carlo simulation
- Reference class forecasting requires an assumption of an equilibrium – the near future will reflect the continuing conditions of the recent past
  - We sample data from a period in the recent past and use it to forecast future behavior
  - The sample period is determined by evaluating the volatility in kanban system liquidity



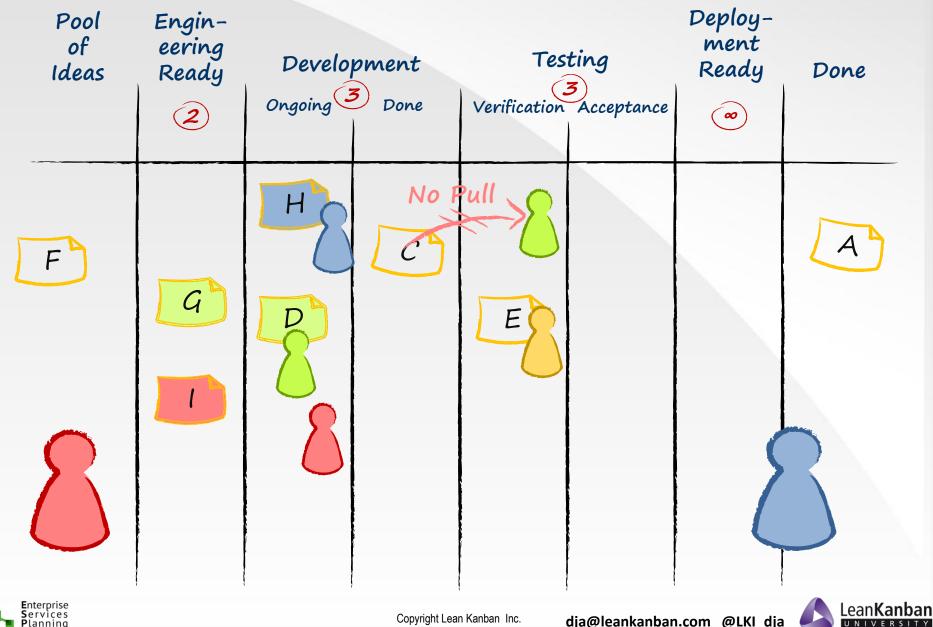


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#### Little's Law provides simple but effective medium to long term forecasts

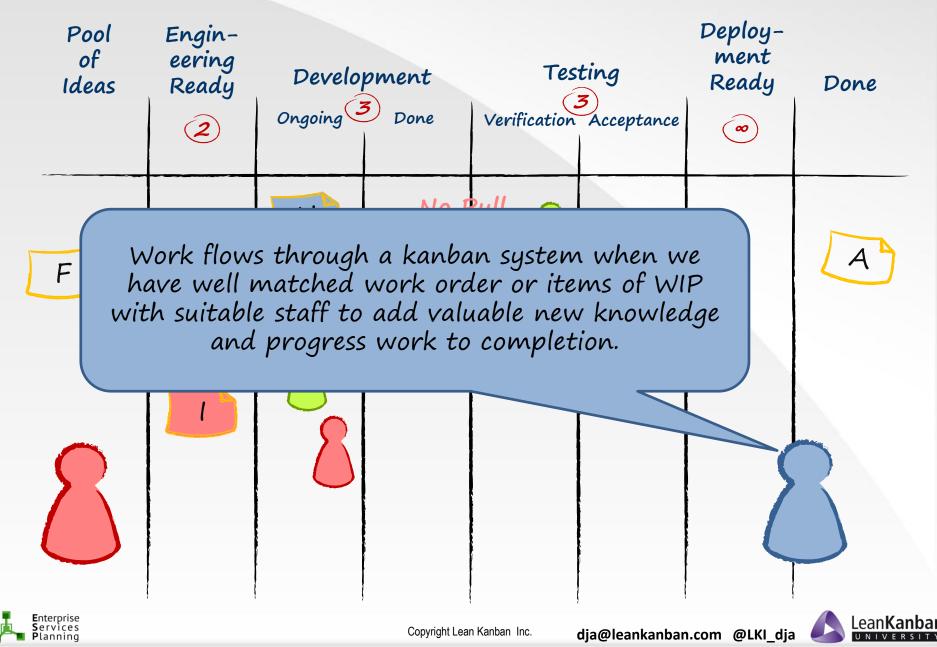


### **Pull transactions measure kanban liquidity**

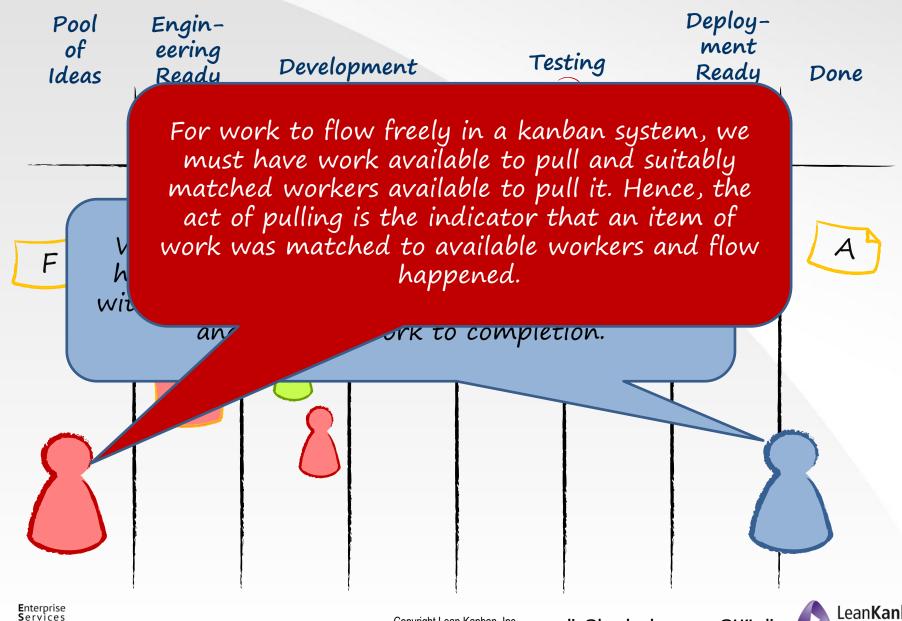


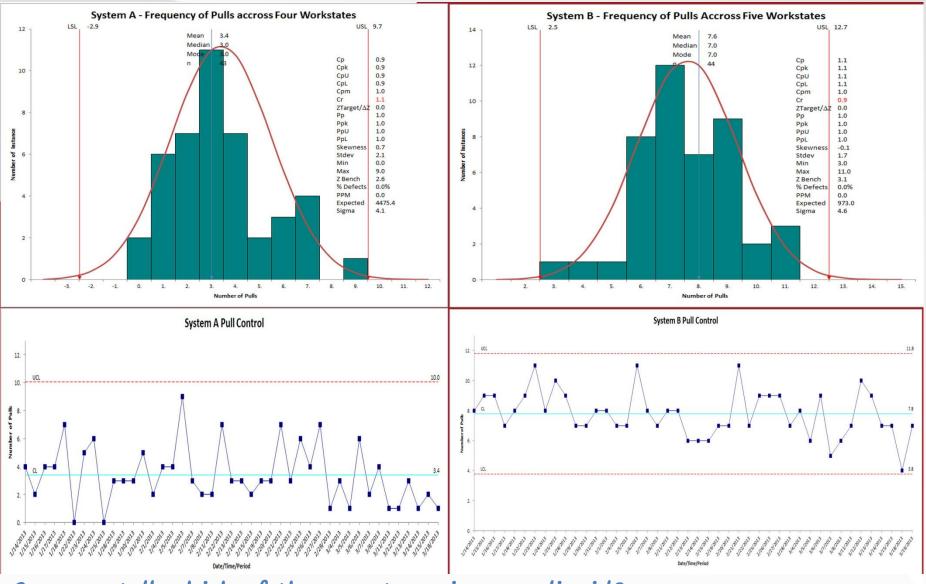


## **Pull transactions measure kanban liquidity**



#### **Pull transactions measure kanban liquidity**



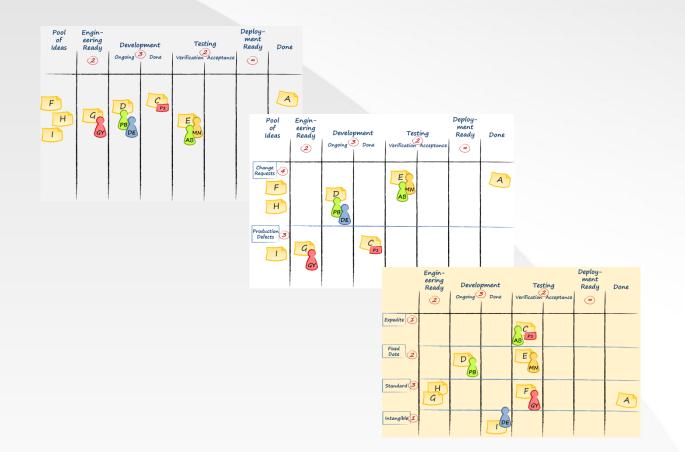


Can you tell which of these systems is more liquid?





# System volatility can be measured as the derivative of pull transaction rate







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# System volatility can be measured as the derivative of pull transaction rate

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We can compare volatility across systems and over-time within a system by observing the derivative of the rate of pull transactions.

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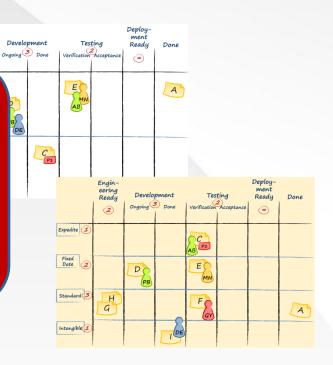
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The derivative is robust to different sizes of system

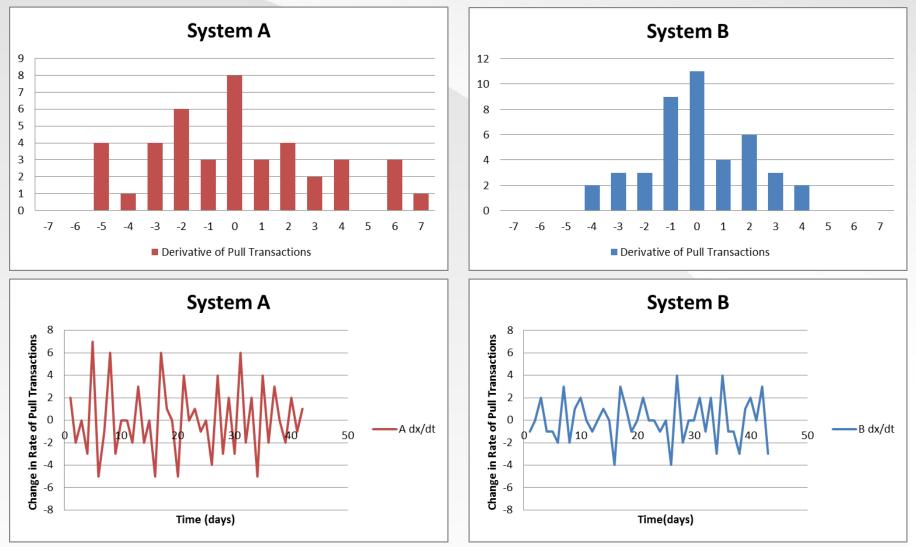








#### **Analysis of Derivative of Pulls**



By understanding the bounds of volatility for a reference data set, we can monitor whether current conditions continue to reflect the recent past



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#### **Liquidity is a General Health Indicator Metric**

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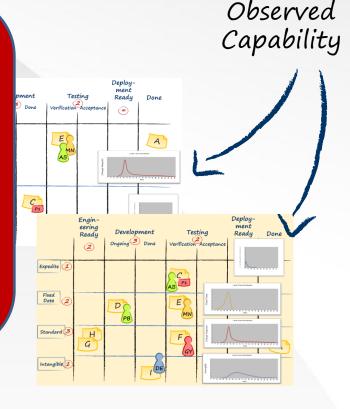
Our measure of liquidity, as pull transaction volume and its volatility as the spread of its derivative, meets the criteria\* for a useful metric...

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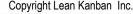
Developmen

Simple Self-generating Relevant Leading Indicator



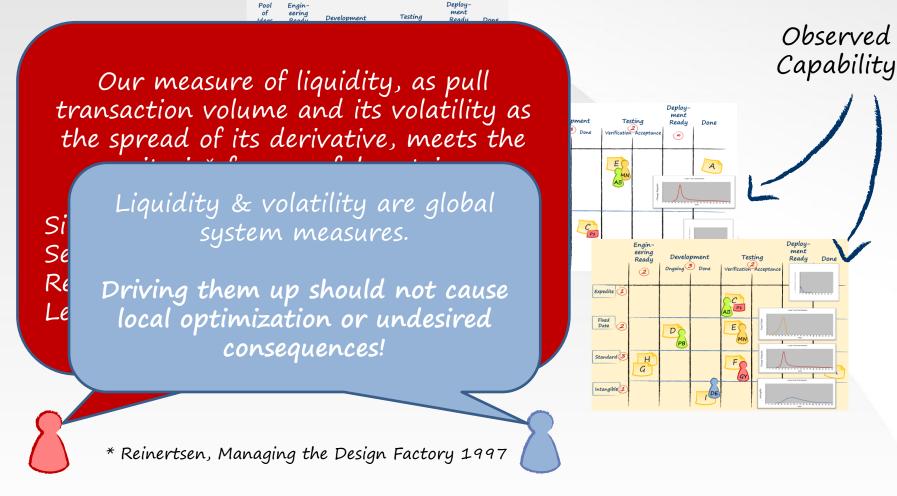
\* Reinertsen, Managing the Design Factory 1997







### Liquidity is a General Health Indicator Metric

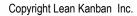




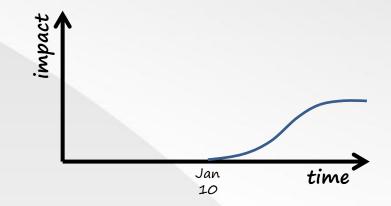




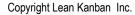




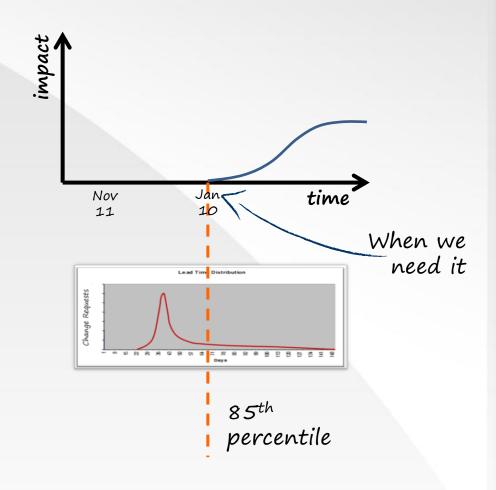








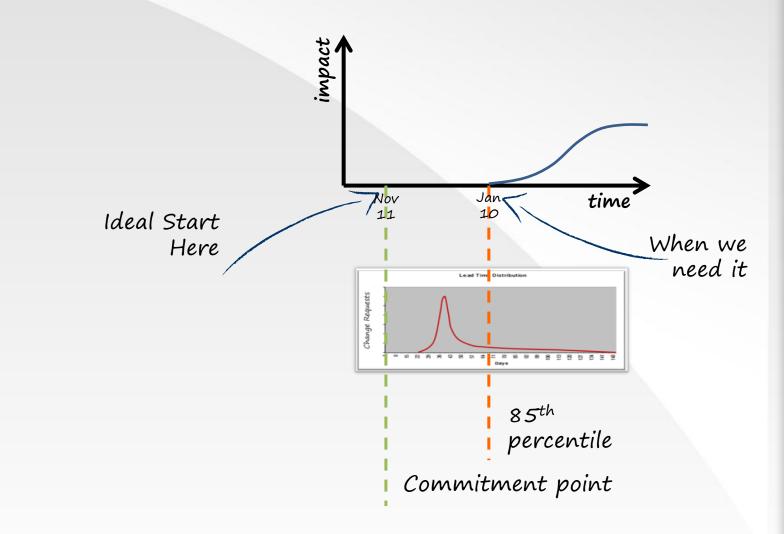




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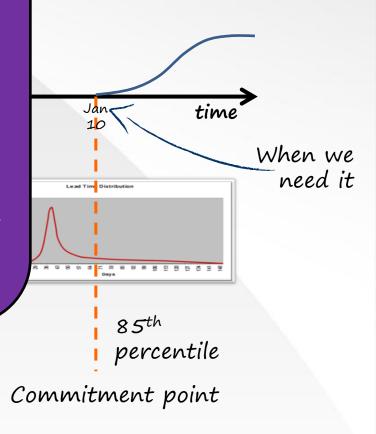
If we start too early, we forgo the option and opportunity to do something else that may provide value.

If we start too late we risk incurring the cost of delay

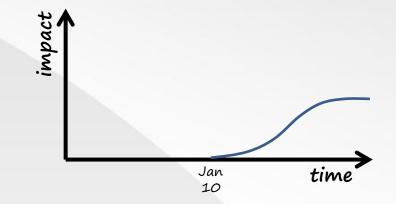
If we pull the work into our kanban system on Nov 11 we have a 6 out of 7 chance of on-time delivery

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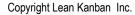
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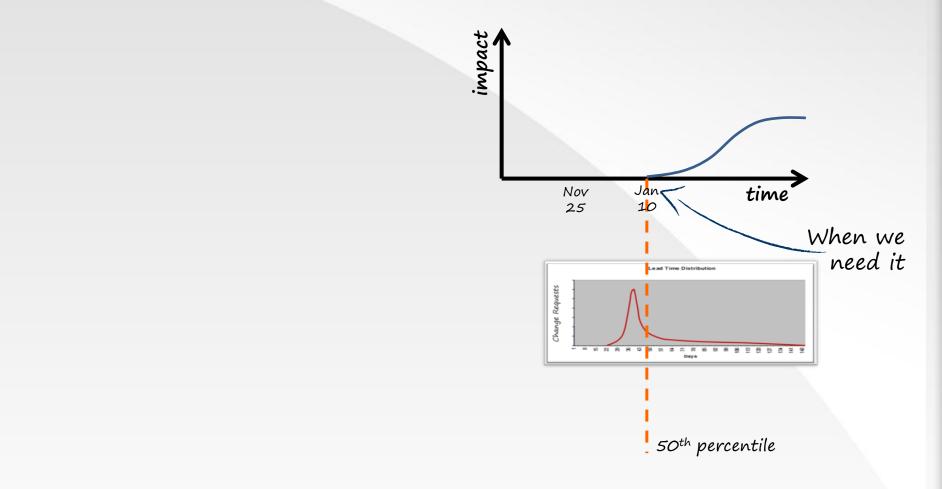






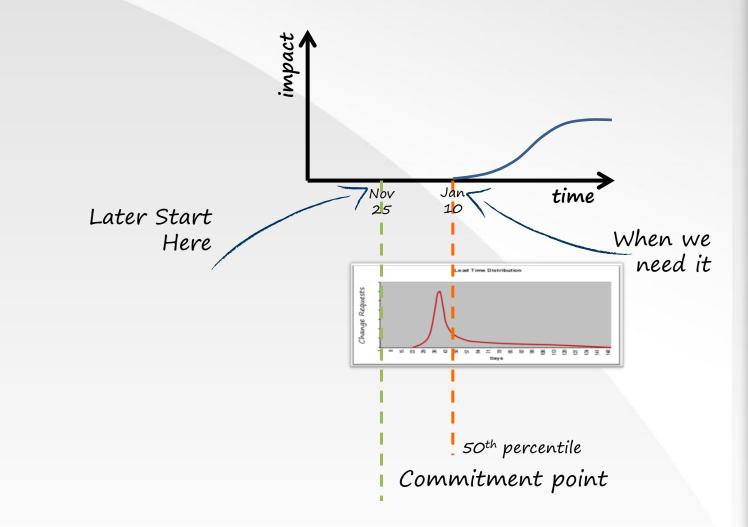




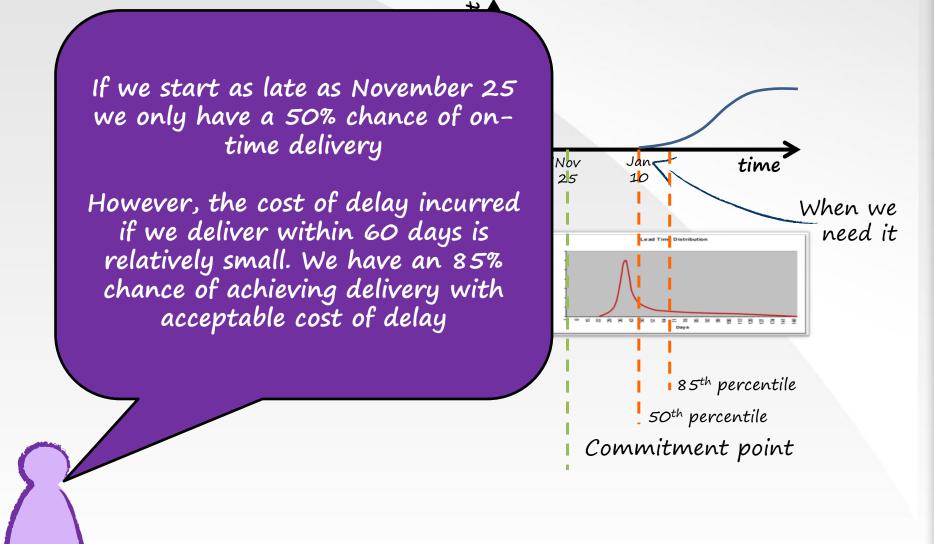








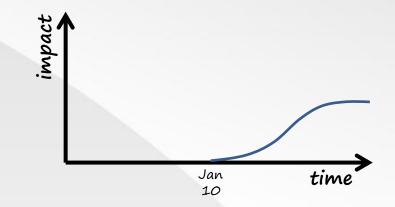




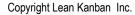


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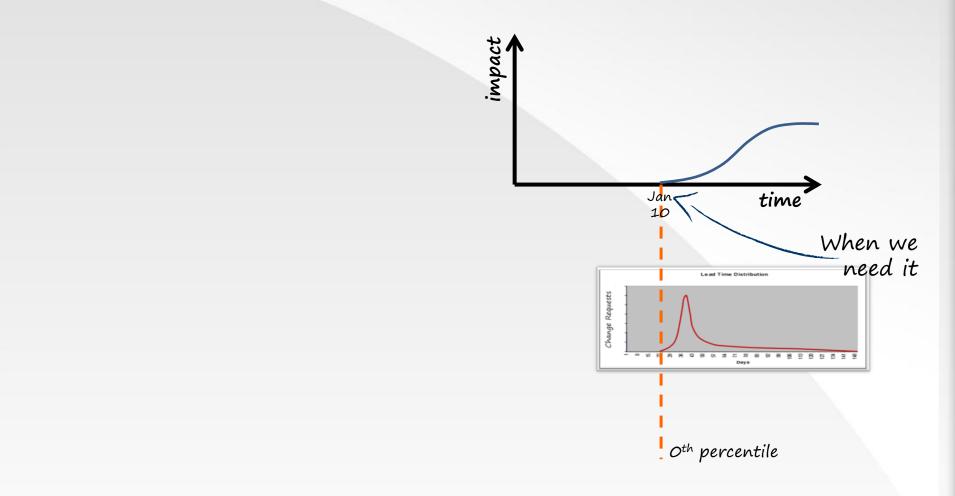
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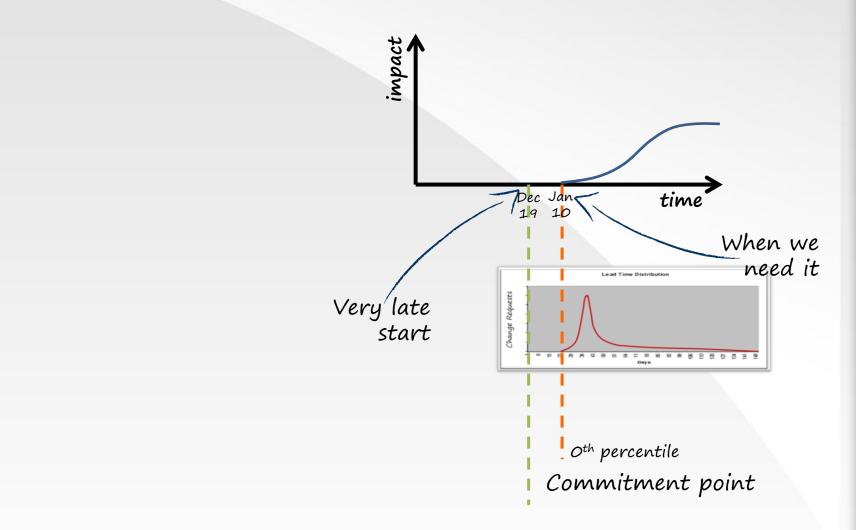




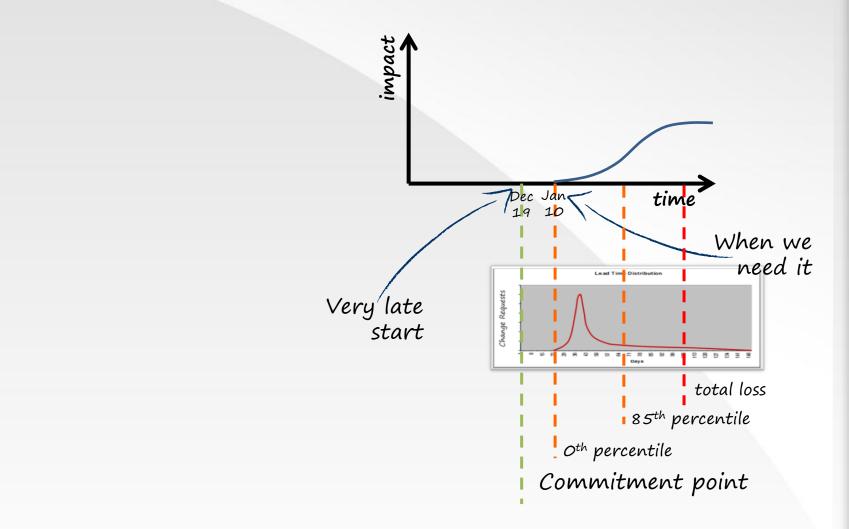






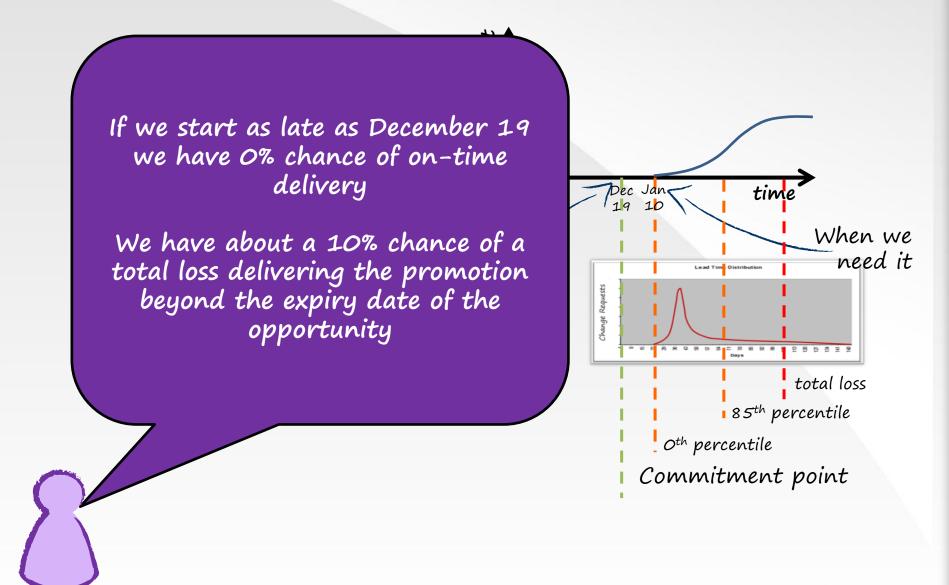














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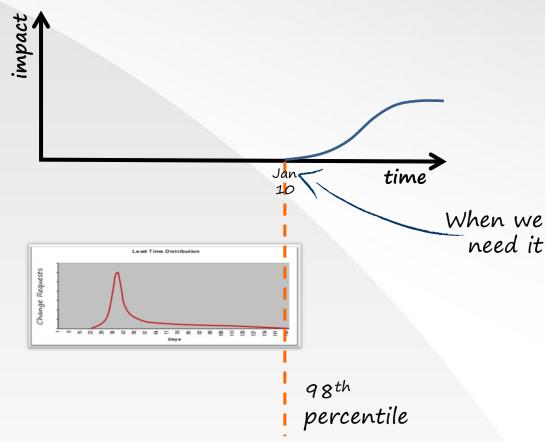
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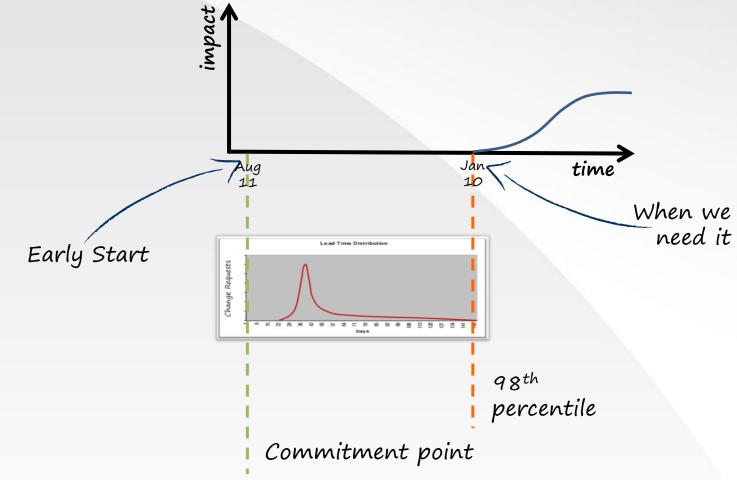






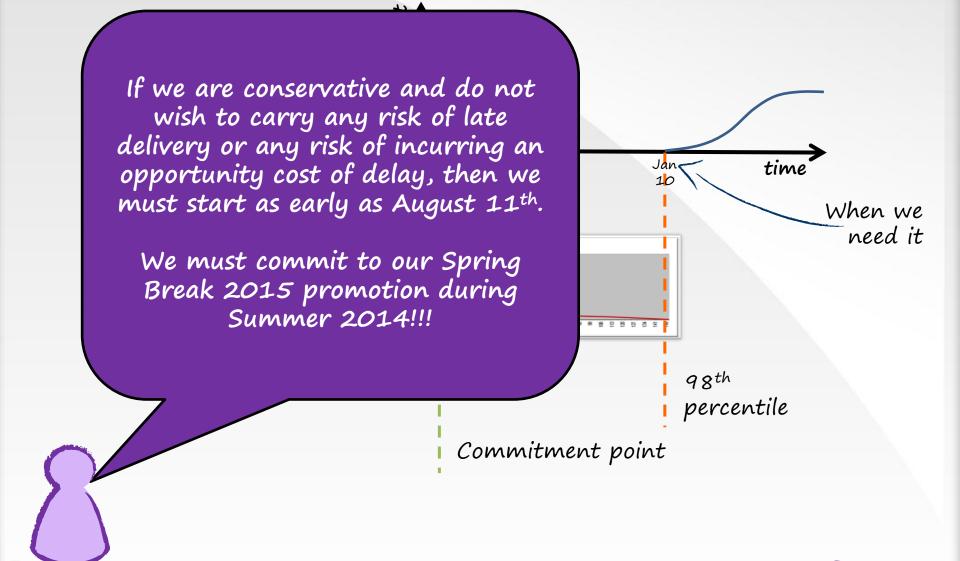




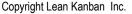




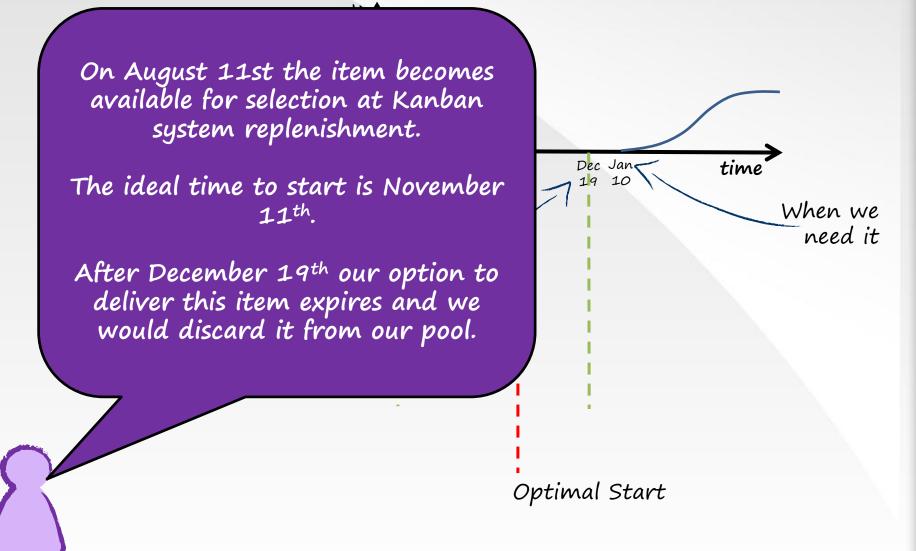




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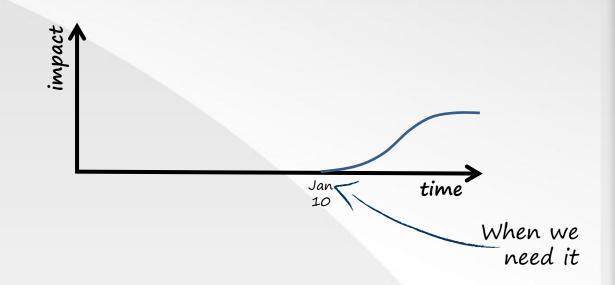




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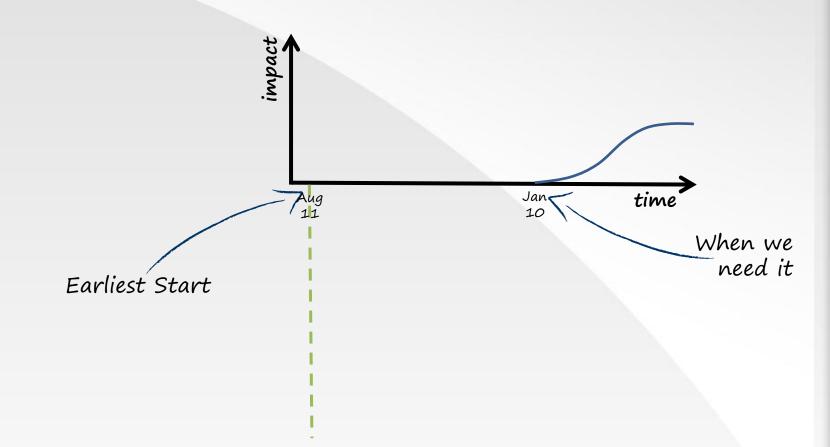
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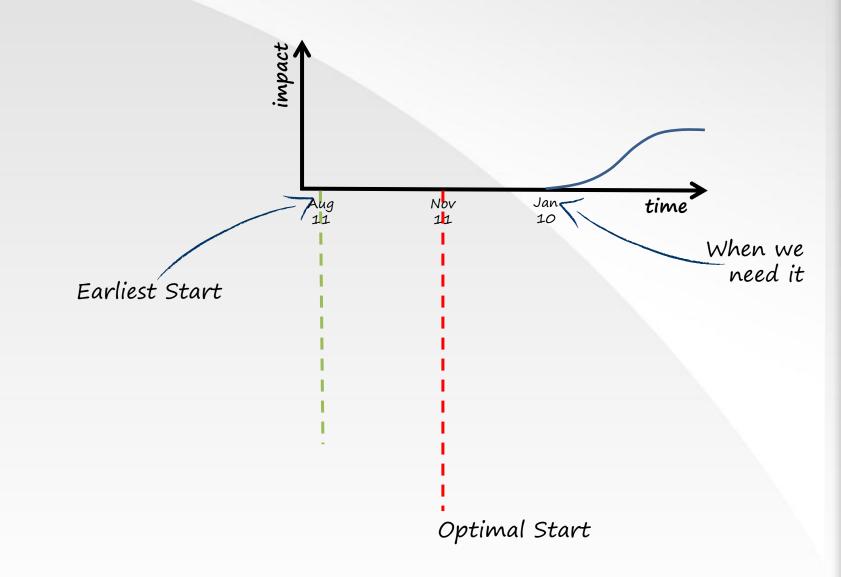






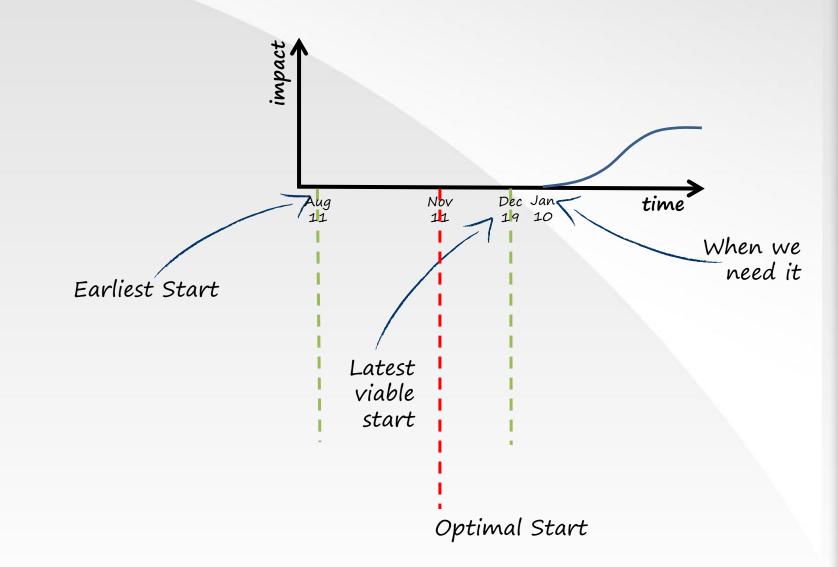






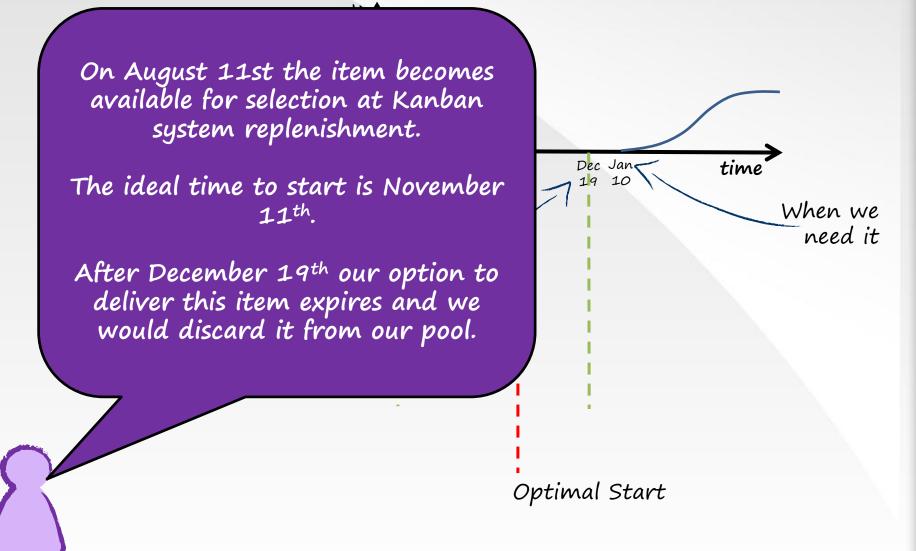














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#### **Managing Dependencies**

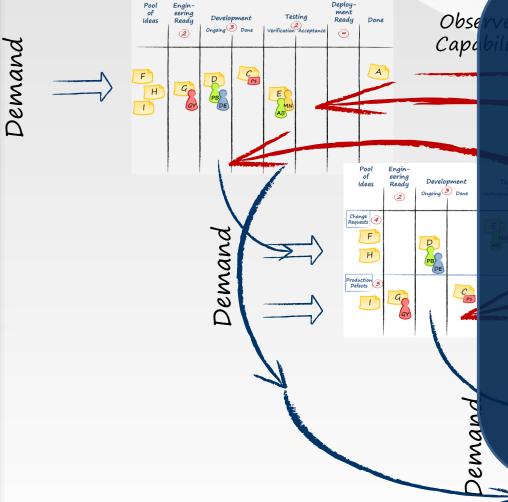




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#### Some systems have dependencies on others

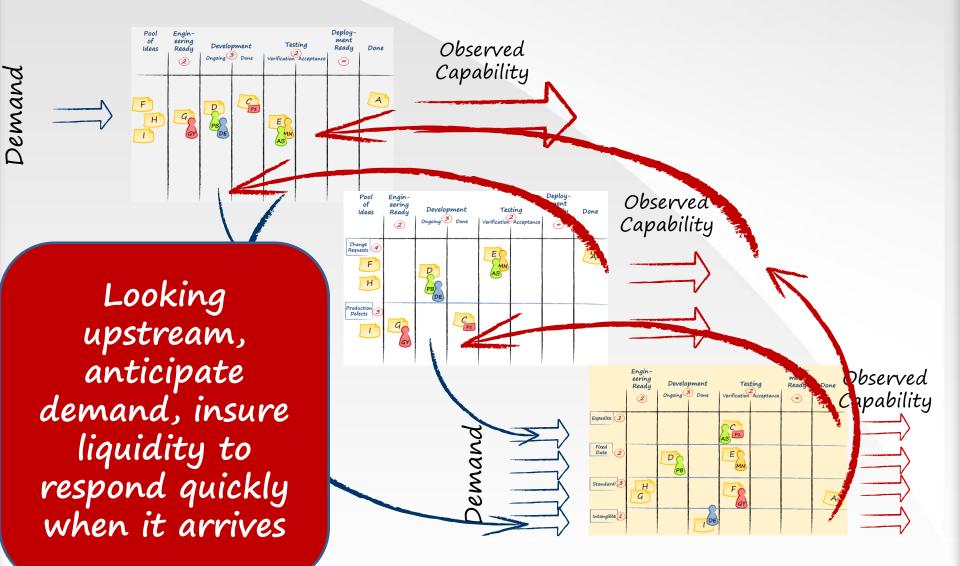


Looking downstream, don't start until you have capacity. Schedule based on lead time distribution possibly filtering for known dependencies discovered in risk analysis, forward signal known dependencies, book capacity, try to avoid delays

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#### Some systems have dependencies on others





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#### Some systems have dependencies on others

Deploy-

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Ready

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Done

Testin

Verification Acceptance

EMN

Combine the two, and across the organization you smooth flow endto-end shortening customer lead times and improving fitness for purpose

Poo

Ideas

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Read

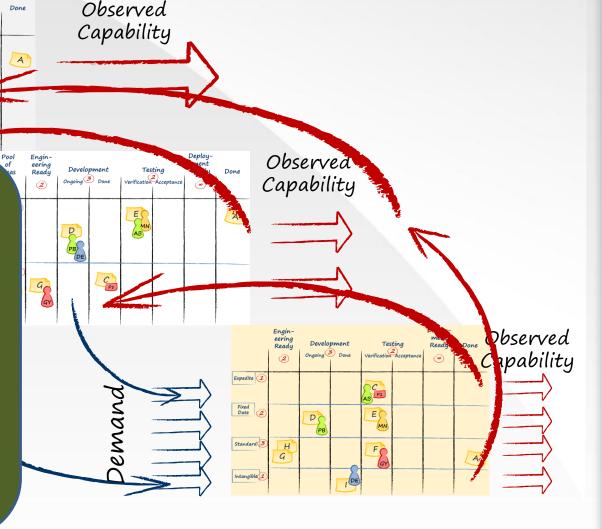
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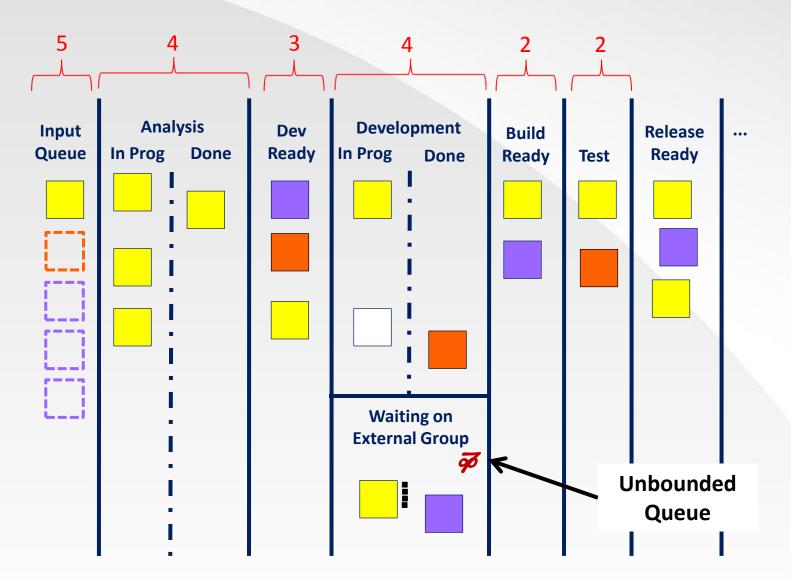
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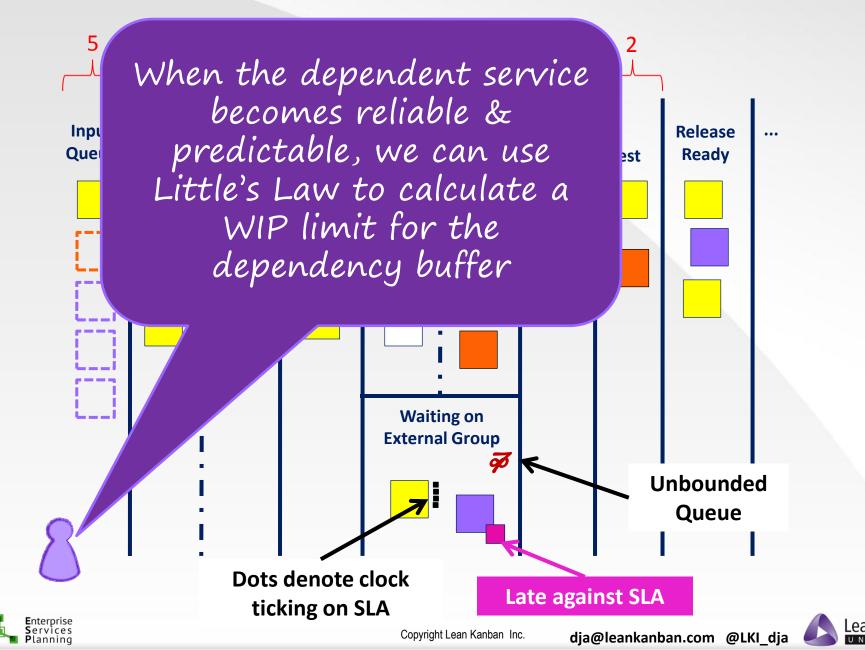
#### **Buffer dependencies, agree SLAs**





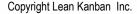


#### **Buffer dependencies, agree SLAs**



## Definition of Enterprise Services Planning





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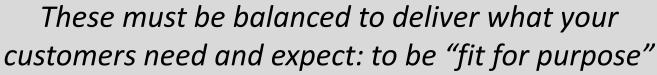


#### Enterprise Services Planning Achieve "Fitness for Purpose"

Product component (capability/brand/nonfunctional elements)

Service delivery component demand /customer expectations/ customer satisfaction)







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#### Enterprise Services Planning **3 Organizational Steps**

Foster a culture focused on continual fit-for-purpose service delivery

#### **Seeing Services**

Identify interdependent services in your organization

#### "Kanban" each service

Use the STATIK method to create a Kanban system for each service

## **3** F

#### Feedback Loop System

Implement a set of responsive feedback loops



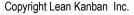


#### **The Kanban Method**

#### **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





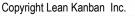


## Enterprise Services Planning Step 1: Seeing Services

#### **Examples:**

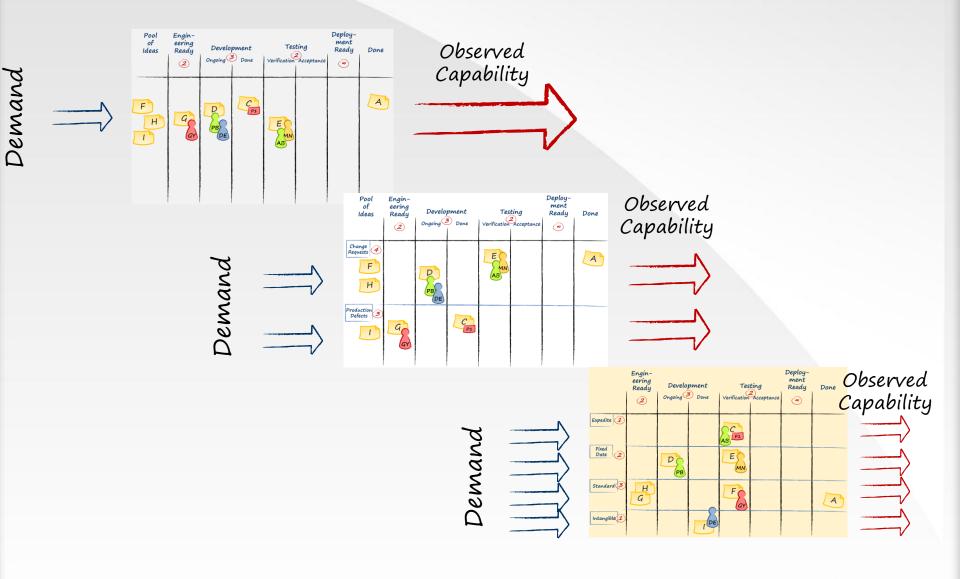
- A HR provides services throughout the organization, but they also need services from IT
- Marketing provides services to product development but they need services from Sales and from IT
- IT provides services to Customer Support. There is an interdependency between Customer Support, QA, and IT Engineering.
- Different feature teams or product teams may have dependencies on each other
- Many groups are dependent upon specialist individuals







## **Treat each service separately**







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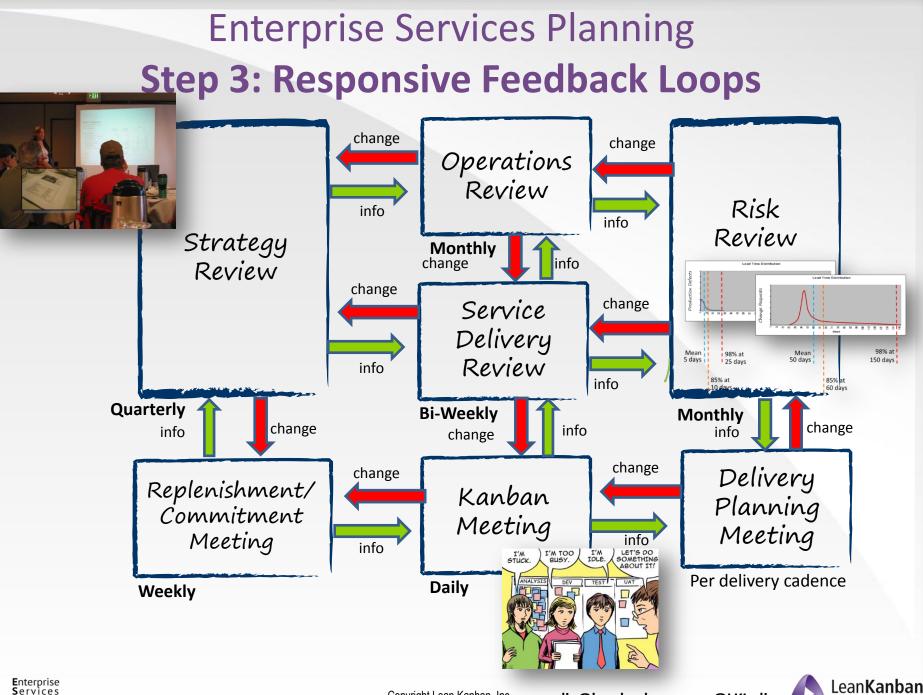
## Enterprise Services Planning Step 2: Kanban the Services

- Use STATIK (Systems Thinking Approach to Implementing Kanban) for each identified 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



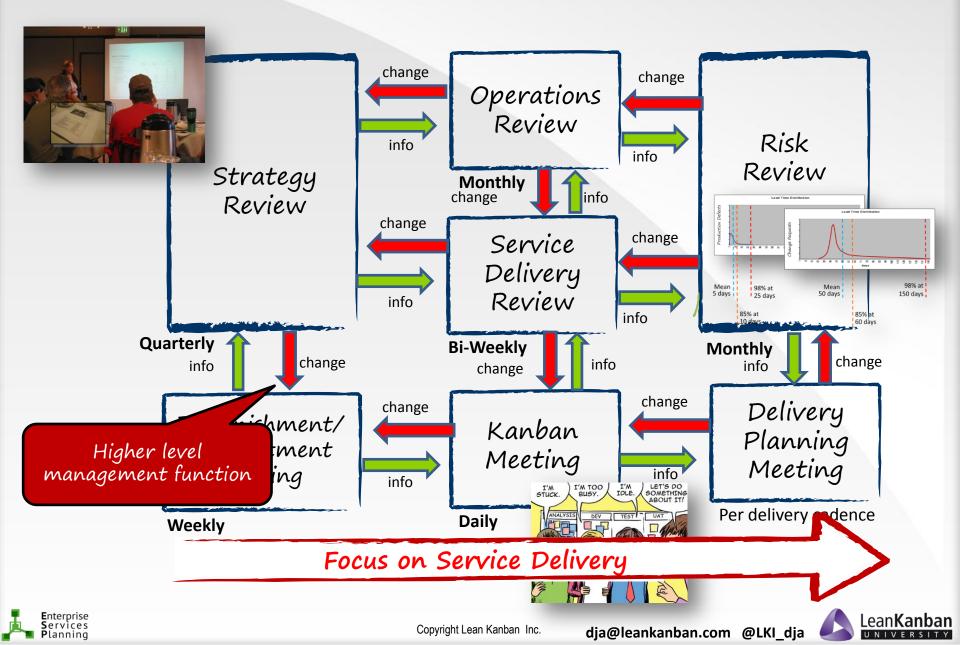






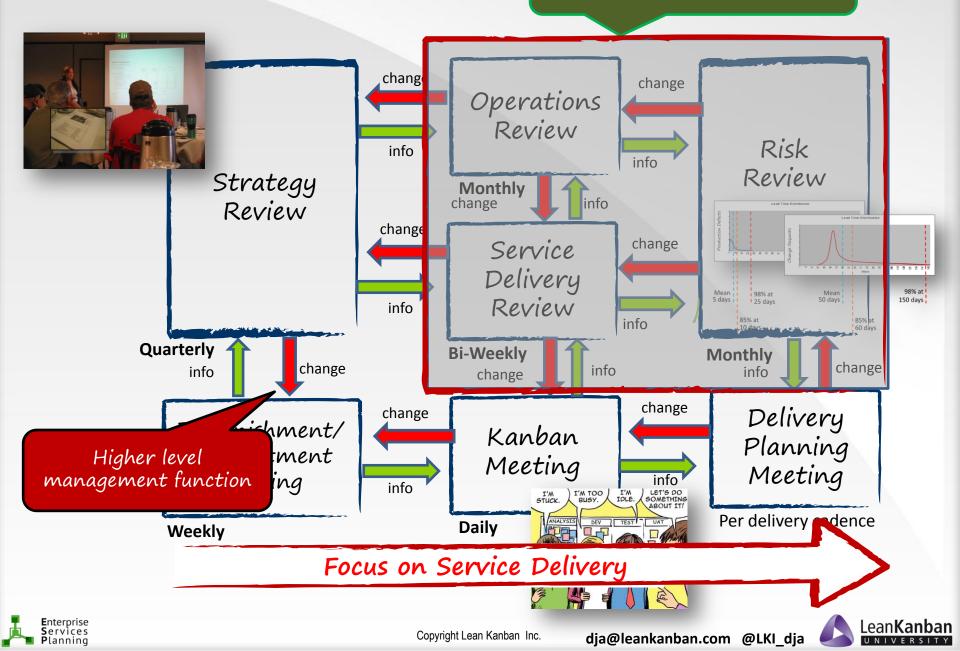
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## **Illustrates 4 Functions of Management in ESP**



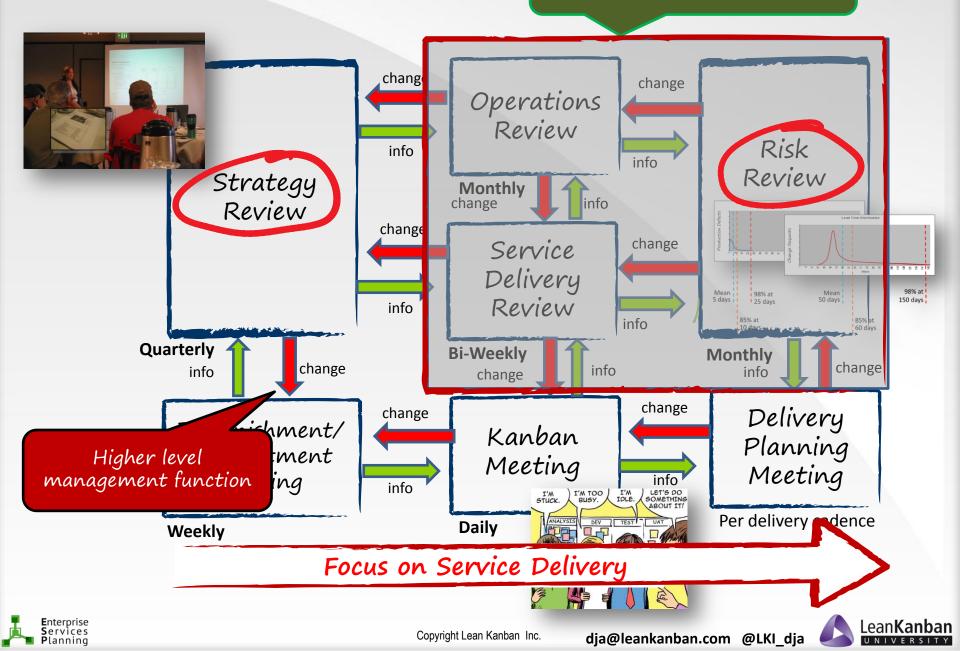
## **Illustrates 4 Functions of**

#### Driving improvement...



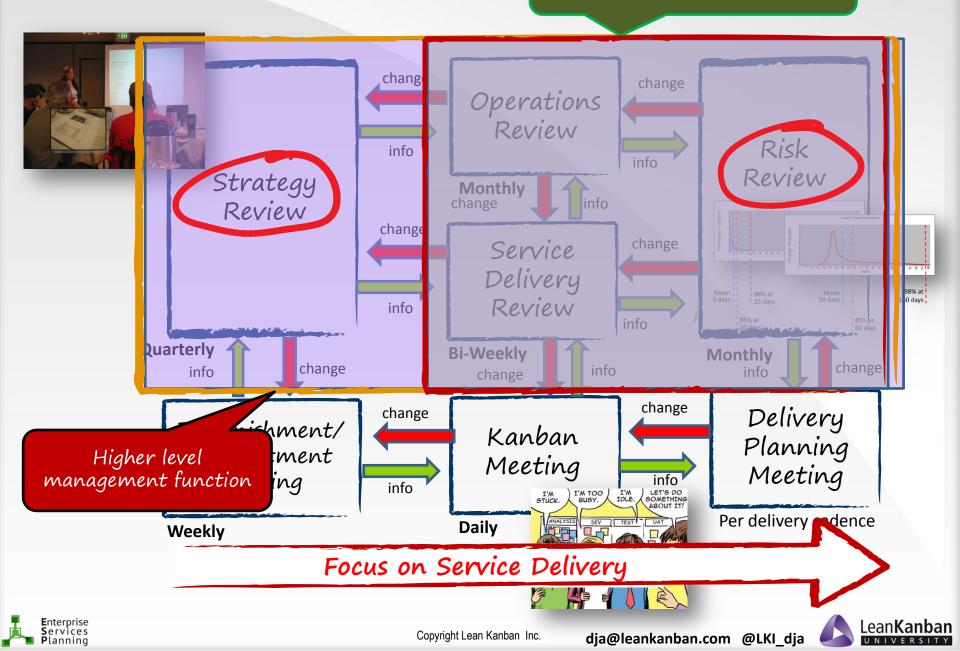
## **Illustrates 4 Functions of**

#### Driving improvement...

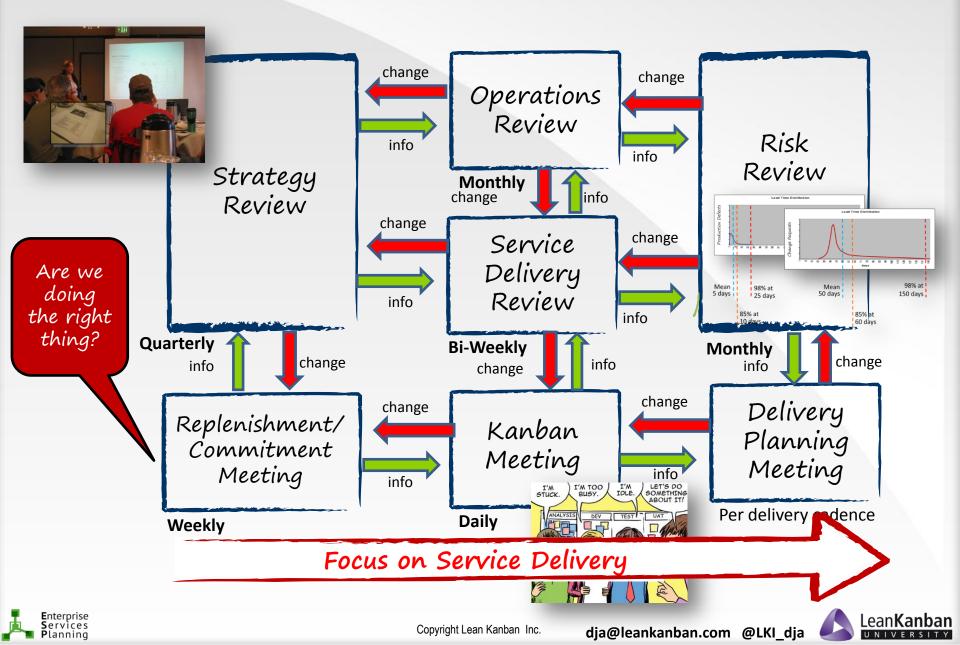


## **Illustrates 4 Functions of**

#### Driving improvement...

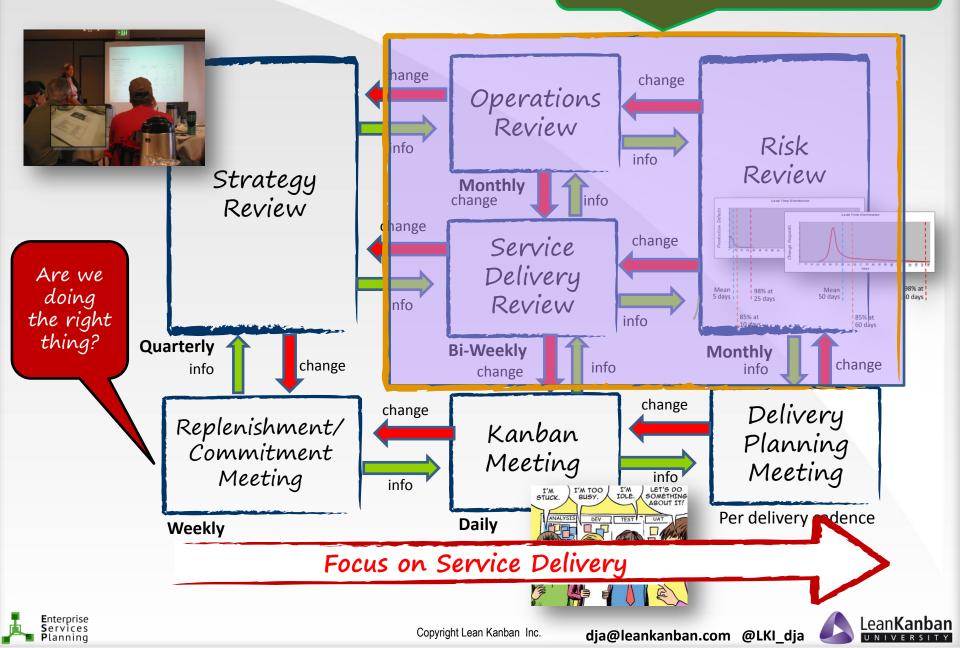


## Right things, at the right time, done the right way



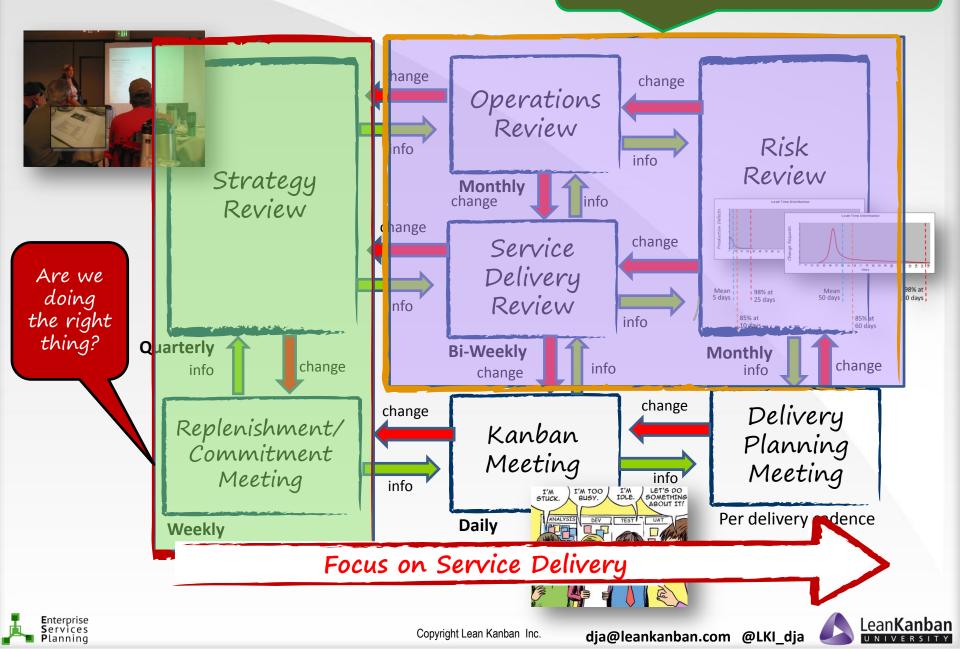
## Right things, at the right time

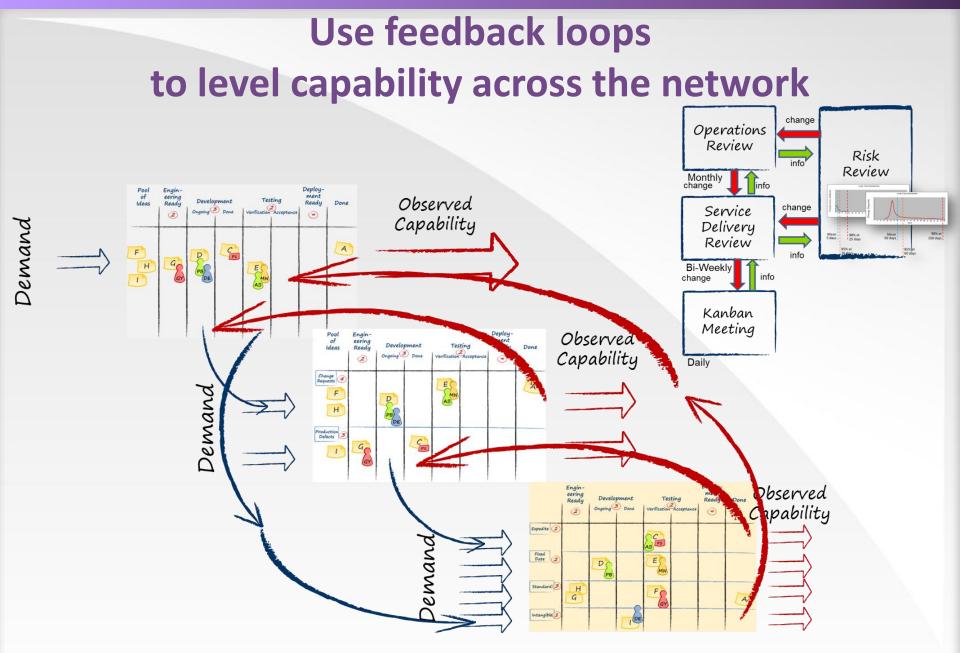
#### Can we do things better?



## Right things, at the right time

#### Can we do things better?





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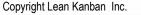
## Enterprise Services Planning 6 Planning Activities

#### ESP activities

- 1. schedule and sequence work
- 2. forecast delivery dates and expected outcomes
- 3. allocate capacity
- 4. manage dependencies
- 5. understand and manage risk
- 6. ensure sufficient liquidity to react to unfolding events

ESP is about balancing demand with capacity to deliver, across an entire ecosystem of professional services







## **Enterprise Services Planning Curriculum**



#### Enterprise Services Planning

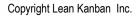








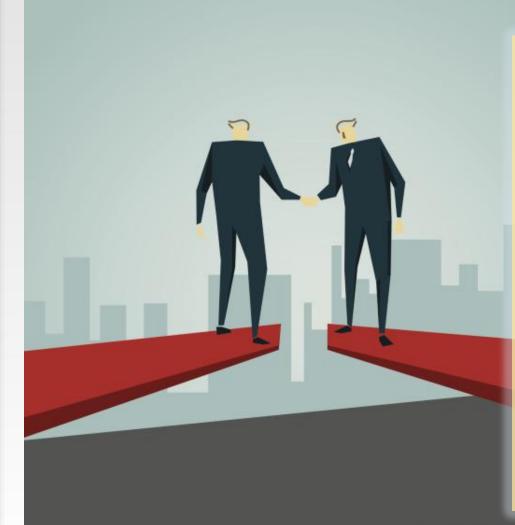




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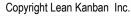
## **Enterprise Services Planning**





 At The Right Things
 At The Right Time
 Done The Right Way
 With Appropriate Risk Exposure







## ESP & Kanban is a complete management system

#### **Managerial Motivator**

#### Senior-level

- Lead the business (strategy and positioning)
- Confidence they can deliver on strategic goals
- Legacy (long term survival)

#### Mid-level

- Up-managing answer the hard questions with confidence
- Down-managing make difficult decisions with confidence

#### Line-level & Individual Contributors

- Relief from abusive environment
  - Overburdened
  - Quality suffers
  - Low job satisfaction

Kanban Agenda

Survivability

#### Service-orientation

(and customer focus)

## Sustainability





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## ESP & Kanban is a complete management system

#### **Managerial Motivator Kanban Agenda** Senior-level **Survivability** Lead the business (strategy and ۲ positioning) Confidence they can deliver on strategic • goals Legacy (long term survival) **Mid-level** Service-orientation Up-managing – answer the hard questions with confidence (and customer focus) Down-managing – make difficult decisions • with confidence Line-level & Individual **Sustainability** Contributors Relief from abusive environment





Overburdened Quality suffers

Low job satisfaction



## ESP & Kanban is a complete management system



#### Senior-level

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  - Low job satisfaction



Service-orientation

**Survivability** 

(and customer focus)

Sustainability







#### **Der Merkelmeister**











### Effective Middle Management enabled by ESP







Effective Middle Management enabled by ESP

- Up-manage answer hard questions with confidence
- Down-manage make difficult decisions with confidence



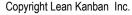




## Der Merkelmeister • Effective Middle Management Der ESPIer • enabled by ESP

- **Up-manage** answer hard questions with confidence
- Down-manage make difficult decisions with confidence







## Kein Merkeln im Büro !!!







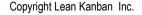


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# Thank you!





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## About

David Anderson is an innovator in management of 21<sup>st</sup> Century businesses that employ creative people who "think for a living" . He leads a training, consulting, publishing and event planning business dedicated to developing, promoting and implementing new management thinking & methods...



He has 30+ years experience in the high technology industry starting with computer games in the early 1980's. He has led software organizations delivering superior productivity and quality using innovative methods at large companies such as Sprint and Motorola.

David defined Enterprise Services Planning and originated Kanban Method an adaptive approach to improved service delivery. His latest book, published in June 2012, is, Lessons in Agile Management – On the Road to Kanban.

David is Chairman & CEO of **Lean Kanban Inc.**, a business operating globally, dedicated to providing quality training & events to bring Kanban and Enterprise Services Planning to businesses who employ those who must "think for a living."









#### Acknowledgements

Risk profile courtesy of BazaarVoice









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