

# Value Stream

## Simulation with Pizza Game

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Limited WIP Society #LonLWS

# Credits

This session is inspired by a similar session that [@AdamYuret](#) ran at [@LeanAgileScot](#) in September.

In this workshop we will use the [Agile42 Kanban Pizza Game](#)

# Agenda

What is value stream mapping

Why we need it

Knowledge discovery process

Simulation

Takeaways

# Value Stream Mapping

**Value stream** mapping is a lean-management method for analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through to the customer. At Toyota, it is known as "material and information flow mapping".

[en.wikipedia.org/wiki/Value\\_stream\\_mapping](https://en.wikipedia.org/wiki/Value_stream_mapping)

# Why do we need it?

To better understand how the work works

See the flow of work items

& the information flows that help with  
understanding and coordination

Focus our improvement efforts

# What about knowledge work?

We look for key knowledge discovery steps

To understand how the work works

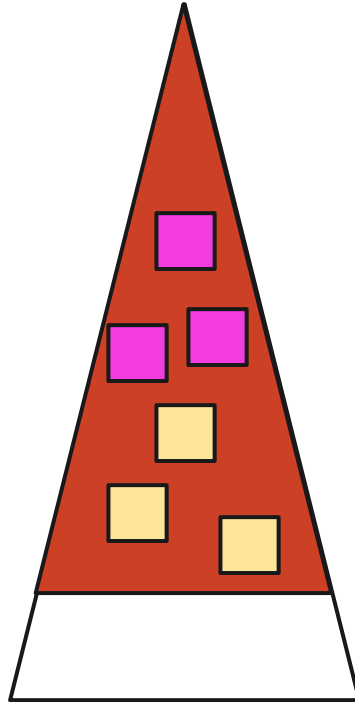
The information flows

Coordination and collaboration points

Identify candidate areas for improvement

# What you're making

Cut the base  
Put on the sauce - paint it red  
Put on the toppings - post its  
3 of each type (colour)  
Cook in the oven  
30 to 40 seconds  
burnt over 40 seconds



Make as many  
pizza slices as  
possible

# Station & Time keepers

Station 1

Cut and sauce

Station 2

Toppings and bake

Oven max capacity 4 slices

**Slices can't be added in  
the middle of a bake**

Time keepers

Every 5th one record the  
time for each step



# Round 1

Make as many pizza slices as possible

# Round 1 - scores

How did you do?

Scoring

Cooked slice 10 points

uncooked base -4

toppings -1

How did it go?

Everyone clear on  
their role?

How does the work  
flows?

# Round 2

Do you have your flow visualised?

Defined roles?

How are you managing the flow?

How will your measures help you?

Visualize how the work works

Limit WIP - build a pull system

Manage Flow

Make policies explicit

Improve Collaboratively

# Round 2 - scores

How did you do?

Scoring

Cooked slice 10 points

uncooked base -4

toppings -1

How did it go?

Everyone clear on  
their role?

How does the work  
flows?

# Improving how you work

Use your measures and your current workflow to define the improvement area

What are you going to change and why

Write what do you expect to happen as the result of the improvement

# Round 3

Let's make pizza

# Round 3 - scores

How did you do?

Scoring

Cooked slice 10 points

uncooked base -4

toppings -1

How did it go?

Everyone clear on  
their role?

How does the work  
flows?

# Takeaways



# Takeaways

In knowledge work we focus on key discovery steps

Making invisible work visible leads to understanding

Batch sizes impact work in process and customer wait time for delivery

Limiting WIP creates a pull based system, reduces work in process and customer wait time for delivery

You should also consider reducing batch size

# Manage for better outcomes

Visualise Work

Limit Work In Process

Measure & Manage Capability

Explicit Work Policies



