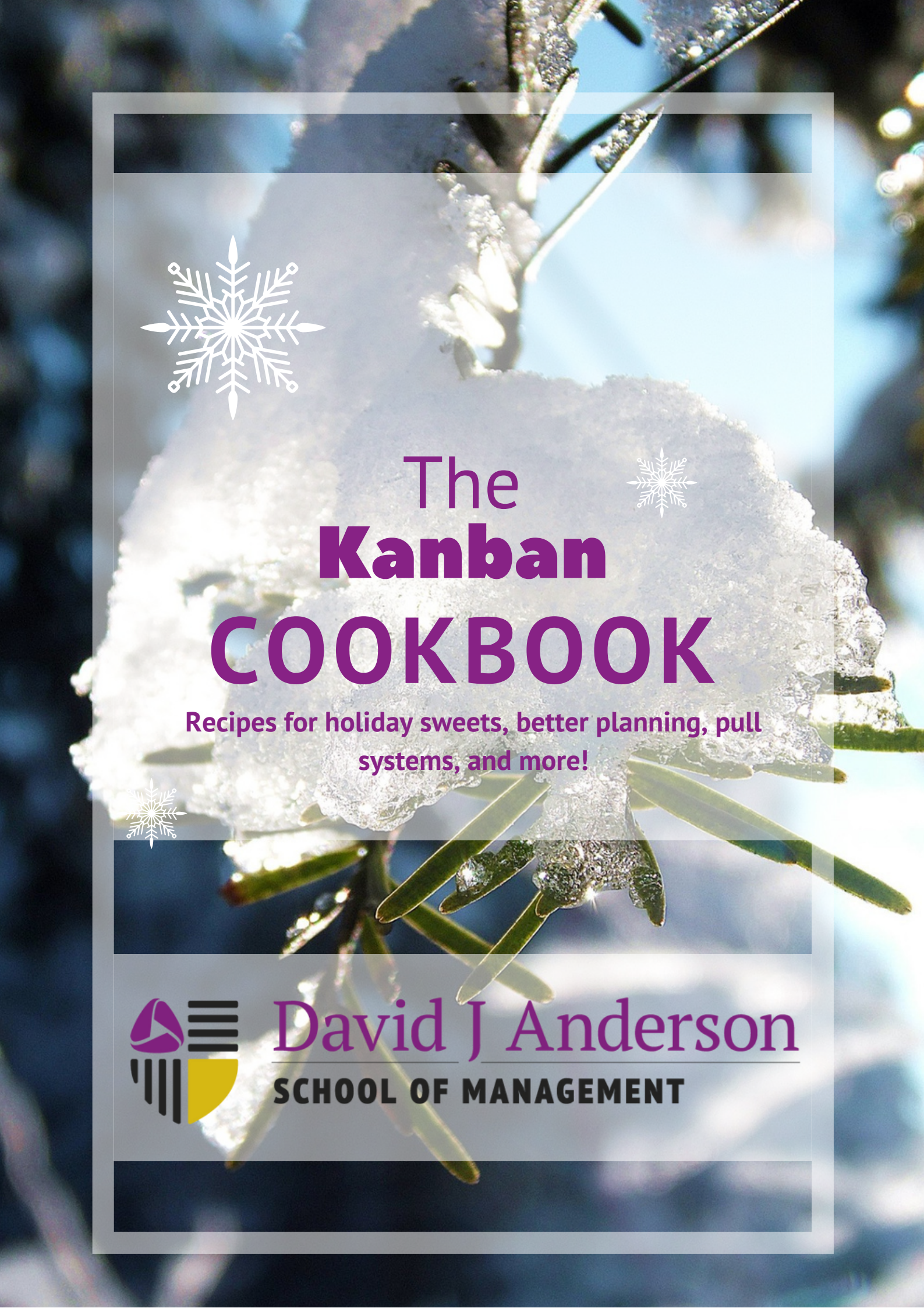

The Kanban COOKBOOK

Recipes for holiday sweets, better planning, pull systems, and more!

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A Note From the Author

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Hello!

My name is Anna, maybe you know me from the classes at David J Anderson School of Management. In my free time, I bake. And I bake a lot! I baked my first cake when I was 7 and since then I've never taken a break! :) In this mini-book, I'm sharing my all-time favorite recipes for sweets and cakes, and, of course, a bit of Kanban knowledge ;)

Enjoy your learning and baking time!

Warm Regards,
Anna

Dad's Chocolate

One of my first kitchen memories includes Sunday afternoons that smelled like broth and parsley. After family lunch, my Dad would take me aside and we would prepare chocolate together.

It's a taste of my childhood, which I keep making when I want to quickly prepare something small, easy and reaaaally sweet!

Instructions

1. Melt butter, water, and sugar together in a small pot.
2. Remove it from the heat and start blending it with milk powder until there are no lumps.
3. Add cocoa and blend again.
4. Put aside (or into the fridge) for 2-3 hours.

NOTE: Add more or less milk powder depending on your further plans.
Add less if you want to:

- Put it between waffles
- Eat it directly from the pot

Add more if you want to:

- Freeze it and cut shapes
- Make petit fours

Ingredients

- butter 82% - 200 g
- sugar - 1/2 cup (165 ml)
- water - 1/2 cup (165 ml)
- milk powder (250 g)
- cocoa (2-3 spoons)

Effort Time
15 Minutes

Lead Time
2-3 hours

Complexity
Low

Kanban Ticket Size

Should they be small and sweet like chocolate? Or big and heavy like Sunday lunch?

Tickets on a kanban board should represent work items that are meaningful to the customer, i.e. they reflect the request made. If I burn my Christmas dinner and decide to order pizza, the ticket on the customer-facing board should represent a request for a pìzza. If internal to the restaurant, the chef asks a cook to chop onion, then the service being provided is chopped onion and the ticket should represent this request.

Tickets should always represent the request being made by the service provider.

The size of a ticket is irrelevant. What is the “size” anyway? Is it the number of hours spent? Or maybe story points assigned by developers?

Tickets go on the board and they flow. Although it may sound counterintuitive, Kanban doesn’t really care for the size of items. Understanding which work item types you have in your service is a more natural way to cluster them than estimating the size of work.

As a general rule, you want to see the ticket flow. If a ticket doesn’t move on your board for a few days or longer, and yet work is being done, then perhaps you need to consider a two-tiered board with smaller, finer-grained requests that spawn from the coarse-grained customer request. The key is to see the flow and to have tickets that represent meaningful pieces of work deliverable to the requester.

So, how do you deal with estimation?

Don’t estimate!

This guidance has been true since the very first Kanban case study at Microsoft XIT in 2004. Do you remember how much time they wasted on delivering estimations that have never been kept instead of focusing on their real, value-adding work?

It's easy to say “don’t estimate", but what should you do instead? With Kanban, you forecast using historically observed lead time. Lead time does not correlate to size, or complexity because flow efficiency is almost certainly very low. The biggest influence on lead time is delay and queuing discipline (or a lack thereof). The size of a piece of work, is not a useful piece of information, even if the size estimate was highly accurate.

I remember working on building products for the finance department. The first work item type we worked on was “new builds”. When we started to release the increments of our product, we also started to receive feedback which resulted in a new work item type, change requests. Additionally, we didn’t avoid defects and had to solve them immediately, as they affected client-facing products. We all realized the nuances by analyzing the lead time data and listening to clients’ feedback. Noticing multi-modal lead time distribution and analysis of lead time and data points showed us that we don’t have one work item type anymore, but three. We created three lead time distributions from the original one and established SLAs based on them. The “size” of these items was a natural consequence of understanding work item types and clustering the ones which were similar in nature – and hence size.

Things of dramatically different sizes will be different work item types. Some guidance might be that if you never see the ticket moved, maybe it is too big. Or perhaps you need a portfolio board or 2-tiered hierarchy so that you can see things moving.

It is a significant change between Maturity Level 1 and Maturity Level 2, which is the moment when you start seeing different work item types.

What should you do?

Develop analysis skills and pay attention to your environment and the language people use – they may help you with identifying work item types in your process.

So, what should be the “size” of my ticket?

Let’s focus on some pragmatic advice for this question:

1. Don’t bother with estimating size. Let a ticket into the system, analyze it as an option in your upstream, and use lead time data to decide when to start working on it in downstream.
2. Understand your work item types. Listen to what people say, what language they use when they talk about their processes and work to be done.
3. The work item should be “small” enough to allow you to see the progress (or lack of progress – blocker, waiting for dependency). If your item stays for a few days/weeks in one state, and you lose the track of dependencies because it’s all the time “in progress”, then you should look for something more granular.
4. Your work item should be “big” enough to not create overheads. If you spend more time on creating and moving an item through the system than working on it – it means that you need something level higher.
5. Use the ticket design to support you in making confident decisions. When you look at it, you know “what’s going on” and you don’t need to deliberate about it. Of course, this perspective, as with everything else, requires some time for trials and probing, and you may need to experiment with different approaches. Be patient. Improve collaboratively and evolve experimentally.

Christmas Gingerbread Cookies

Ingredients

- sugar - 300 g
- water - 5 spoons
- butter - 200 g
- cocoa - 3 spoons
- honey - 500 g
- flour - 1 kg
- gingerbread spice - 40 g
- baking soda - 2 tea spoons
- eggs - 3
- decorations!!!

Effort Time (dough)
20 Minutes

Lead Time
27.5 hours

Effort Time (cookies)
2-3 hours

Complexity
Medium

I got this recipe a few years ago from my friend, Ola when I was on a mission to find the perfect gingerbread formula. I tried and I've never changed it again.

Instructions

Day 1

Boil sugar and water. Add butter, cocoa, and honey and melt all together. Cool the mixture down a bit.
Move it to a big bowl, and add flour, spice, soda, and eggs. Knead the dough and put it in the fridge for 24 hours.

Day 2

Take the dough out from the fridge and let it rest for 30 minutes. It will be very tough but don't worry, you will make it more flexible with your hands.
Break away the piece of the dough and roll it out (should be 5-8 mm thick). Cut out your favorite shapes.
Put the cookies into the oven (175°C) for 10-12 minutes.
When they cool down, decorate them as you like! I usually cover them with melted chocolate and let my family decide on the topping :)

BAKER'S TRICK: If the cookies are very dry on the 2nd day, put them into the big box with an apple inside. It will help them soften.

One Important Planning Question

Like finding the perfect recipe for gingerbread, it is important to have a recipe for planning as well.

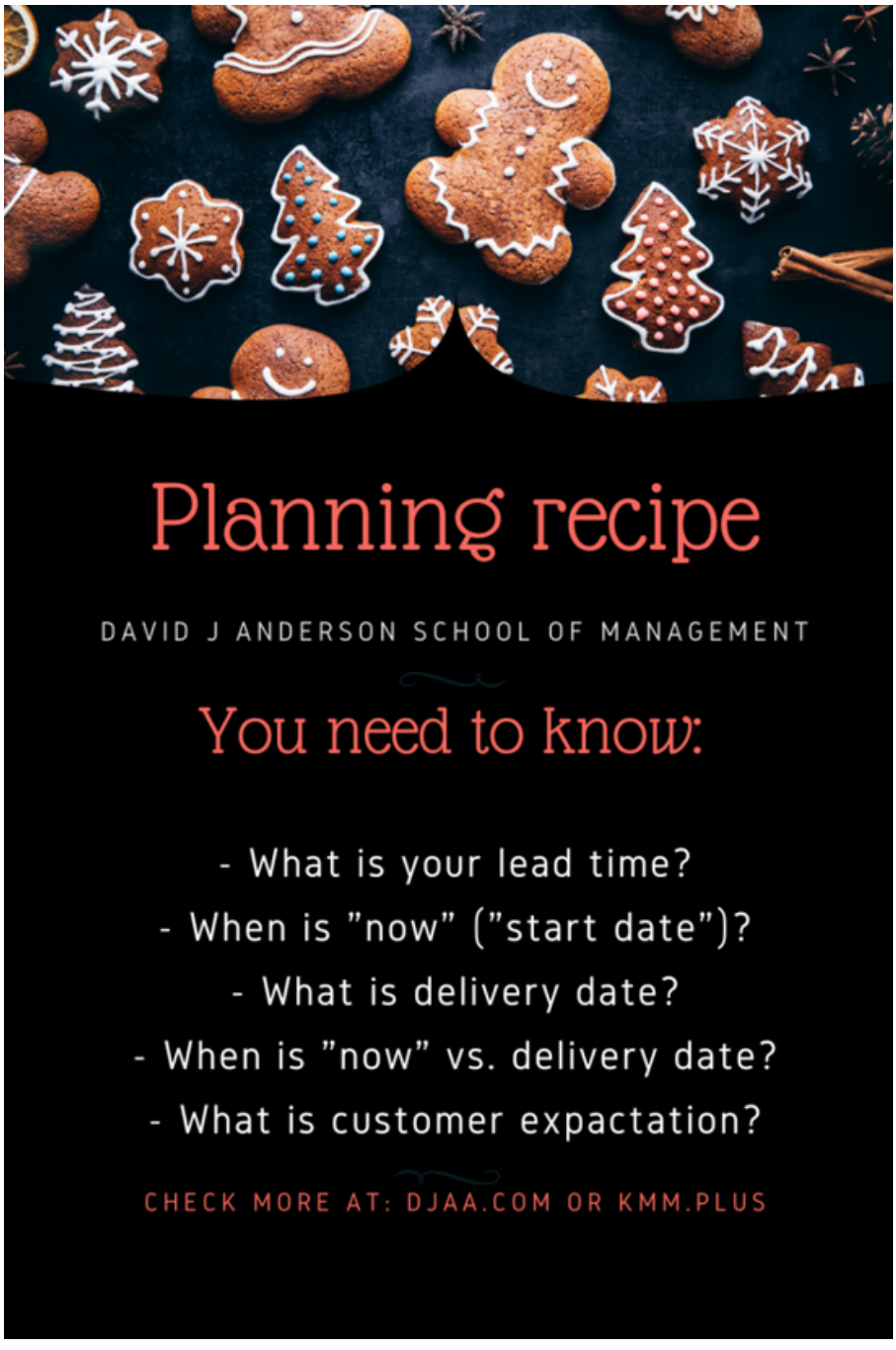
Let's take a look a closer look at planning and one important question we should ask ourselves using the gingerbread cookies we just made to guide us through as a metaphor for our work.

The Question

One of the questions I hear most often is: “So, when should this be delivered?”. Don’t ever ask this again!
Instead, ask yourself and others: “When should we start in order to deliver on time?”.
The change may sound trivial or insignificant even, but it helps you focus on what is important in planning and considers the non-homogeneous nature of our work.

The Recipe

Let’s start with the planning recipe!



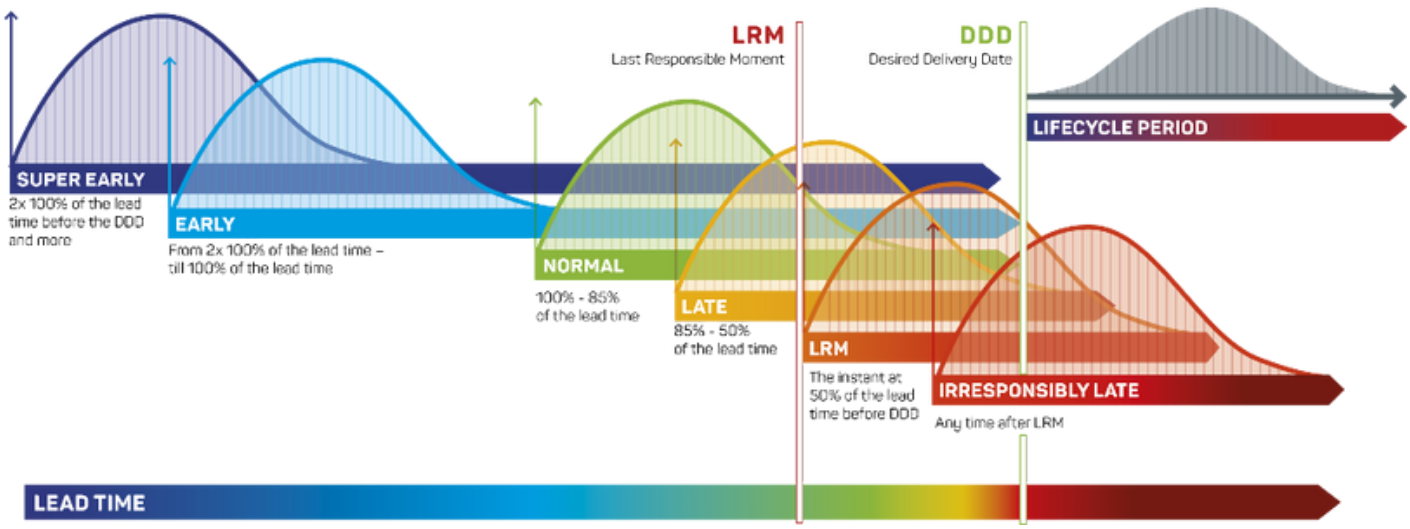
In Poland, we prepare (among others) two types of gingerbread, a larger version that looks like real bread and, of course, cookies.

Now we will use our recipe to prepare for planning:

QUESTIONS	GINGERBREAD	GINGERBREAD COOKIES
Lead Time	30 days	2 days
When is "now"?	27th of November	27th of November
What is delivery date?	24th of December	24th of December
When is "now" vs. delivery date?	Normal (85%-100% of lead time)	Very early (more than 200% of lead time)
What is customer expactation?	Deadline (ok, it still could be delivered by 25th of December, but 24th is "no deployment" day)	Deadline (ok, it still could be delivered by 25th of December, but 24th is "no deployment" day)
		

What this example tells us is that delivery date is important but is not the one and only component of good planning. What is missing most often is information about lead time and how late, or not, you are when comparing your lead time to the time span from "now" to the delivery date.

This chart helps in better understanding the start dates ranges:



How can I use this?

1. We can clearly see that there is almost no customer tolerance in terms of the delivery date. This means that if I miss the date, the next delivery opportunity for me will be next year.
2. If it's late November and I haven't started working on my gingerbread yet – it's high time! It's still the "normal" range, but I'm balancing dangerously on the "late" edge when I am required to increase the urgency of my work (to either a fixed date or even expedite).
3. If I wait with my gingerbread any longer, it will make no sense to even start doing it (anyone who prepared full month-maturing gingerbread knows what I mean).
4. On the other hand, the lead time for my gingerbread cookies is only 2 days. You can start eating them right after taking them out of the oven. The lead time distribution is very thin-tailed (it just takes two days to prepare them: one day for preparing the dough, and one day for baking and decorating). This means that I'm still in a "super early" start date range at the end of November. But now the whole world of opportunities opens for me. I can:

- Prepare the dough and let it rest until I have time for baking and decorating.
- Bake the cookies but decorate them later.
- Do everything and put them in the box.
- Wait until "just before normal" and do them in two days.
- Bake cookies early and let customers (friends and family) eat them to realize there is nothing left for Christmas, but... there is still time to prepare a new batch!

Why is it important?

Knowing "when to start to deliver on time" supports not only good planning decisions but also helps you with:

- Decreasing the number of "late" items delivered in a rush
- Improving work quality – you have time to focus on it (e.g., how to beautifully decorate your cookies)
- Escaping defects
- Avoiding multitasking and quality issues resulting from multitasking
- Satisfying your customers with timely delivery (or delivering earlier if it's not overserving!)
- Avoiding last-minute deployments, overtime, and late shifts (who wants to bake on Christmas Eve or the night before?)
- Giving you confidence in decisions made and time to adjust to changing situations

"Boiled" Rolls

Saturday Morning Special

Effort Time
1 hour

Complexity
Medium/High

Lead Time
3 hours

"Boiled" Rolls ("Obwarzanki")

There aren't many things in this world that smell and feel better than hot rolls on a Saturday morning. They are made in the style of Polish *obwarzanki* (special kind of bread which is boiled and baked). You need to try them!

Ingredients

- flour - 700-800 g
- warm water - 1,5 glass (375 ml)
- fresh yeast - 20 g
- sugar - 1 spoon
- melted butter - 30 g + 2 tea spoons
- water to boil the rolls - 3 l
- baking soda - 5 tea spoons

Instructions

In a cup mix yeast with 1 spoon of flour, sugar, and 0,5 glass (125 ml) of warm water. Put the mixture aside in a warm place for 20 minutes until it starts growing.

Prepare a big bowl. Put in there the flour, yeast mixture, 1 glass of warm water (250 ml), salt, and 30 g of melted butter. Knead the dough. If it's sticky, keep adding flour until you get nice, flexible dough not sticking to your fingers.
Put the dough aside in a warm place for 1 hour and let it grow.

After resting, divide the dough into 15-20 pieces and form each piece in the roll. Leave them for another 10 minutes.

In the meantime, boil 3 liters of water together with baking soda. Put 3-4 rolls into the water and boil for 30 seconds. Then take them away and place them on baking paper.

When all rolls are boiled, cover them with the remaining melted butter and cut on top.

Bake them in the oven for 15 minutes (200°C) until they become "golden".

Kanban in an Intuitive (Pull) System

What baking rolls with my daughter taught me about pull systems

Intuitive!

I start each class by saying that Kanban is pragmatic, actionable, and evidence-based. But there is 4th word: Kanban is **intuitive**!

Every Saturday we are baking rolls for breakfast. My daughter helps me form balls which I give the final shape next.

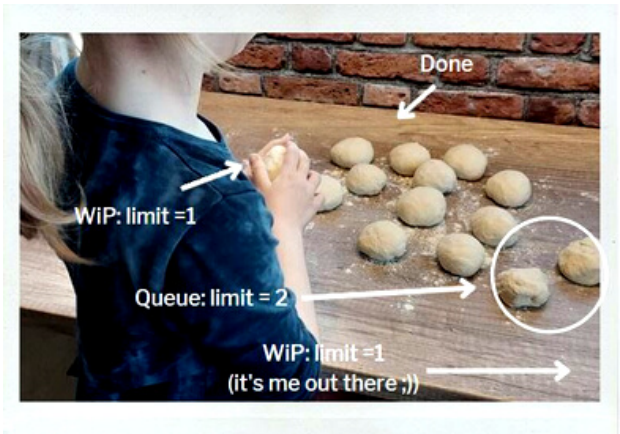
Once she said: "Look, mommy! You finish one, I give you one!"

I was stunned for a moment - she just created her own definition of a pull system, totally intuitively based only on observation (and evidence obviously!).

The System

A pool of work

A pool of work - Items in progress - Items completed/done



Step 1 (Hela): limit WiP = 1
Queue before step 2: WIP limit = 2
Step 2 (me): limit WiP = 1
Done/completed = unlimited

Explicit policy: no rolls ("requests") were created until capacity was released.

We didn't design it upfront, the process emerged, the same as WiP limits.

We had to adjust the process for a moment when we realized that a few rolls were too big and we needed to make them smaller (the process in Step 1 stopped, Hela helped me with that).

And that's it. Pull system for sustainable processes.

Take it, share it, apply it to your organization, and scale if needed.

Bon appetite!

Thank you and happy holidays!

Learn more at DJAA.com