

Flowstoppers are the enemies of agility

...but not a law of nature, and you can do something about them



Annette Vendelbo's professional work

- Agile expert with a particular focus on Kanban, but also Scrum and SAFe and the challenges of agile.
- Agile consulting, coaching and management sparring
- Teaching: Kanban, Scrum, agile leadership, strategic agility, etc.
- Accredited Kanban Trainer (AKT), Accredited Kanban Consultant (AKC), certified SM and PO, SAFe and PM certified

Volunteering, writing, lecturing:

- Agile subject matter expert on Project Management Institute's agile initiatives and exam writing workshops
- Collaboration with Kanban University, including translation of material into Danish
- Author of several books (agile transformations and Kanban)
- International speaker
- Blogger
- Podcaster (The Agile Agenda)

What you are about to hear now is completely independent of company size, industry, sector etc.

The experiences I share are from agile implementations and transformations, consulting etc. during the past 15 years.



Flowstoppers are enemies of agility...

**...but what exactly do we mean by
'flowstoppers'?**



To get closer to it,
we have to ask:

What is **'flow'**
and why is it **important?**

The short answer:



'Flowstoppers'
are obstacles that
disrupt the progress—

'Flow' is the progression of tasks
and their resolution through a
workflow from start to finish

The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

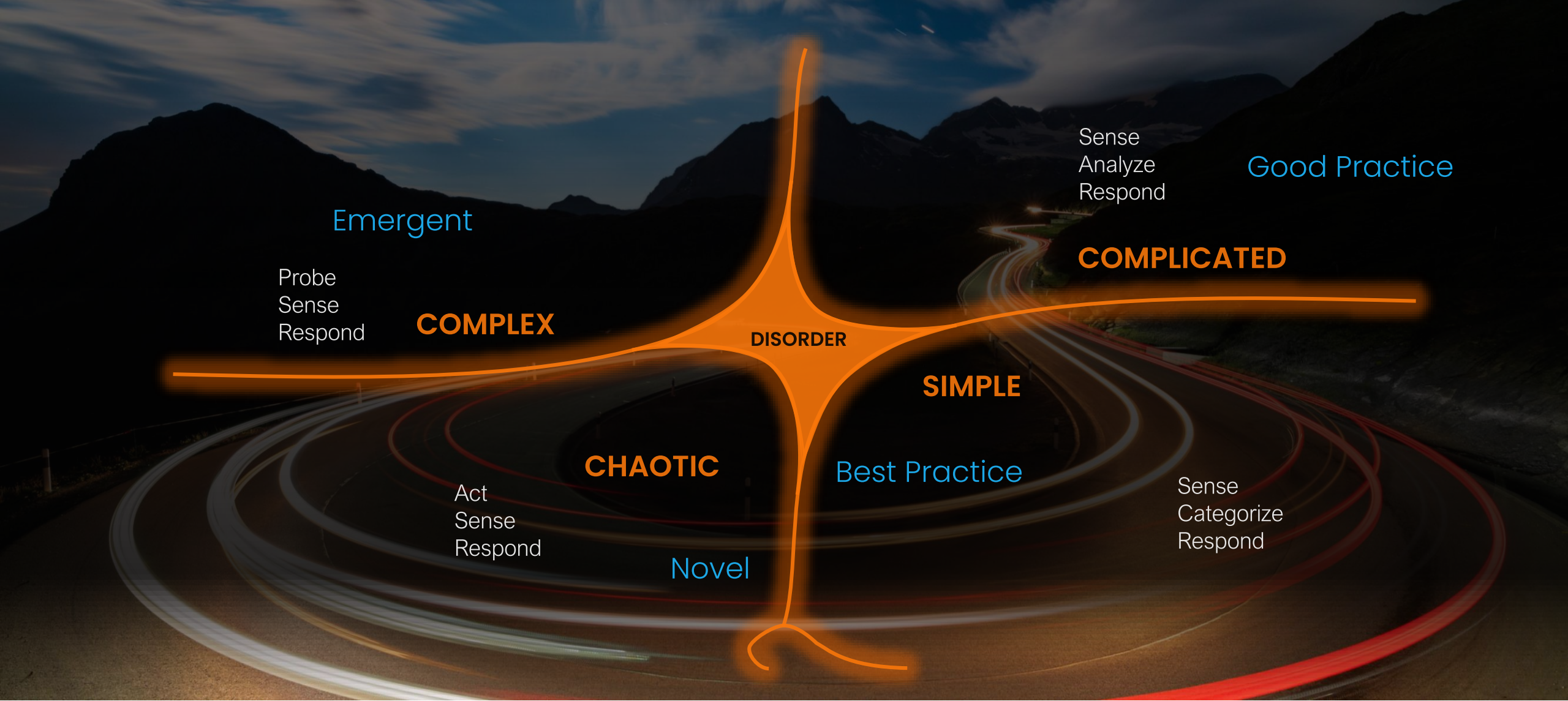
Complexity in knowledge work

The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

Complexity in knowledge work



Whether you run your projects or initiatives the classic way or you've chosen an agile approach, one thing is 100% certain:

You're guaranteed to be hit with things that no one could have predicted, no matter how much careful planning you do.

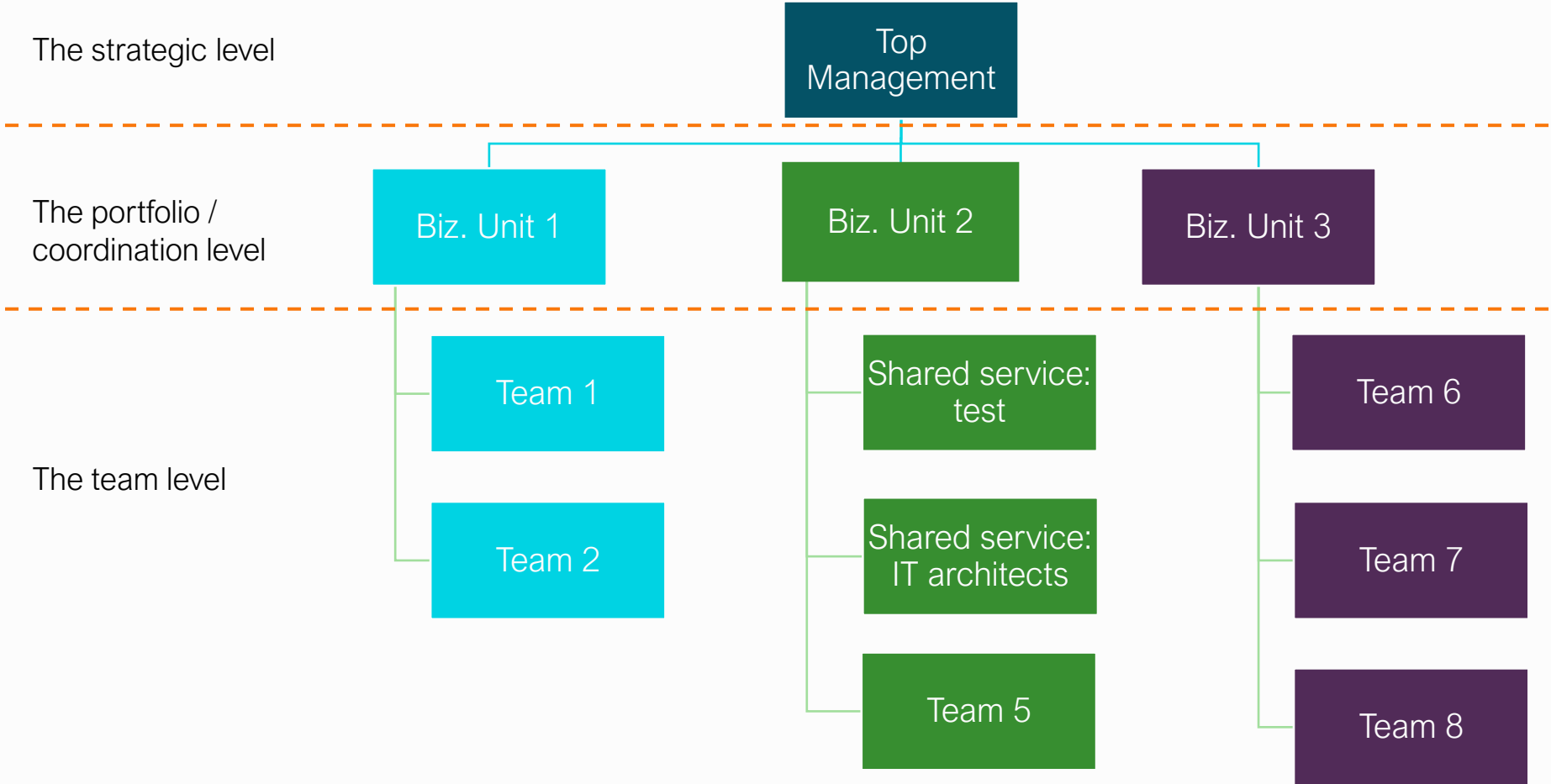
- That's because **knowledge work** is carried out in **complex waters**, where there are **many unknown unknowns** and areas where **everything is new**.

- That's why it's an **illusion to believe**, you can hit the **"bulls-eye"**, you are trying to hit, when creating a **project plan** or planning in **sprints**.

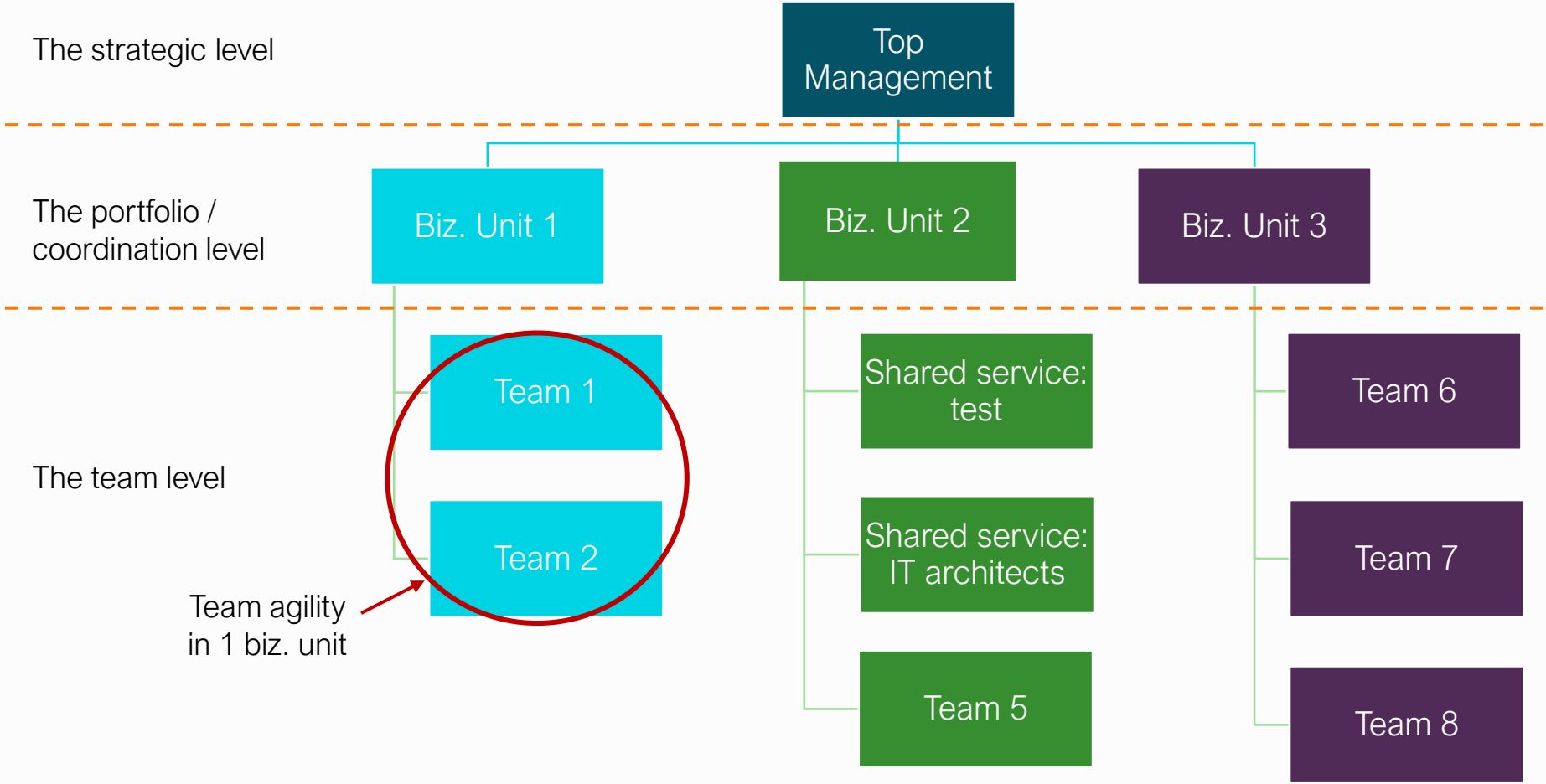


Flowstoppers impede agility, but...
...agility is not one single thing

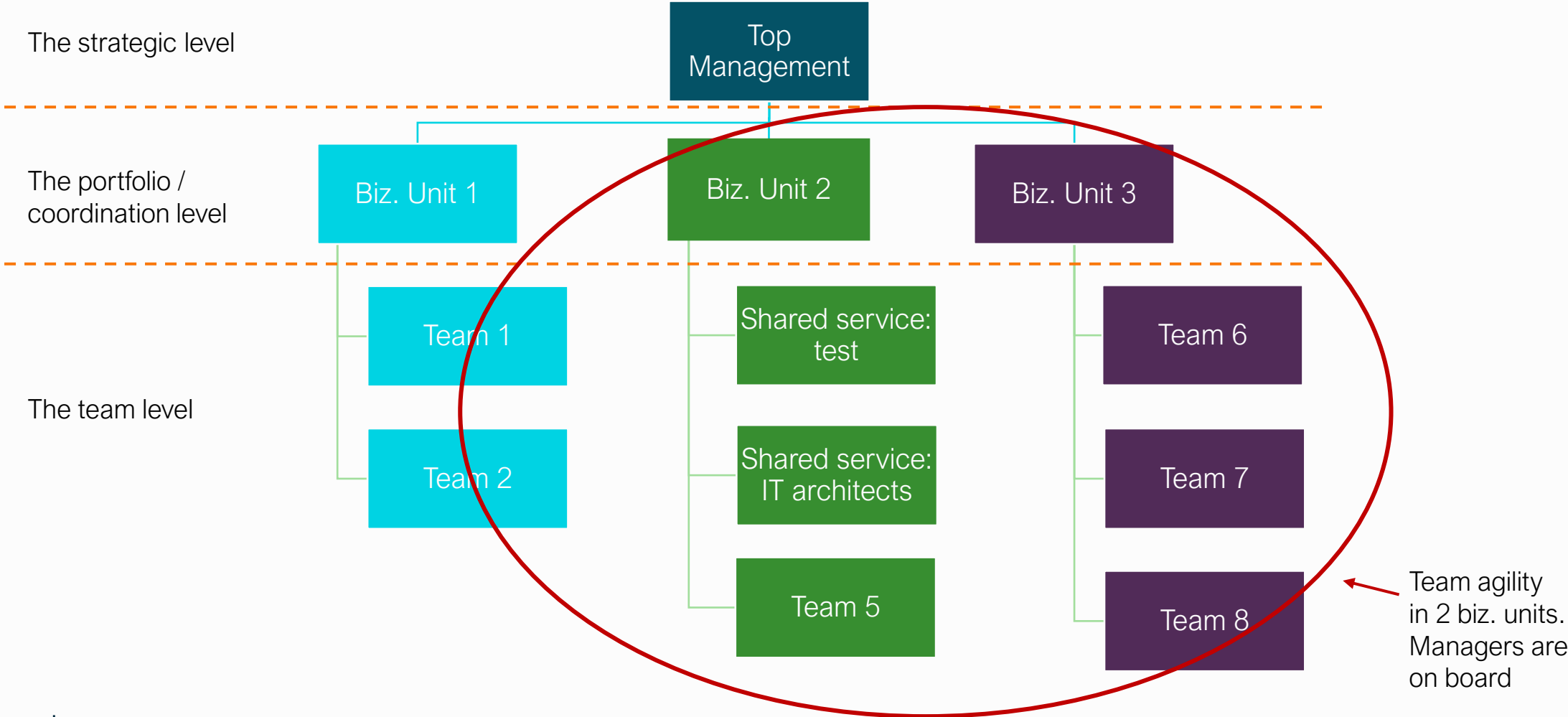
Team agility and organizational agility are two different things, and take place at 3 different flight levels



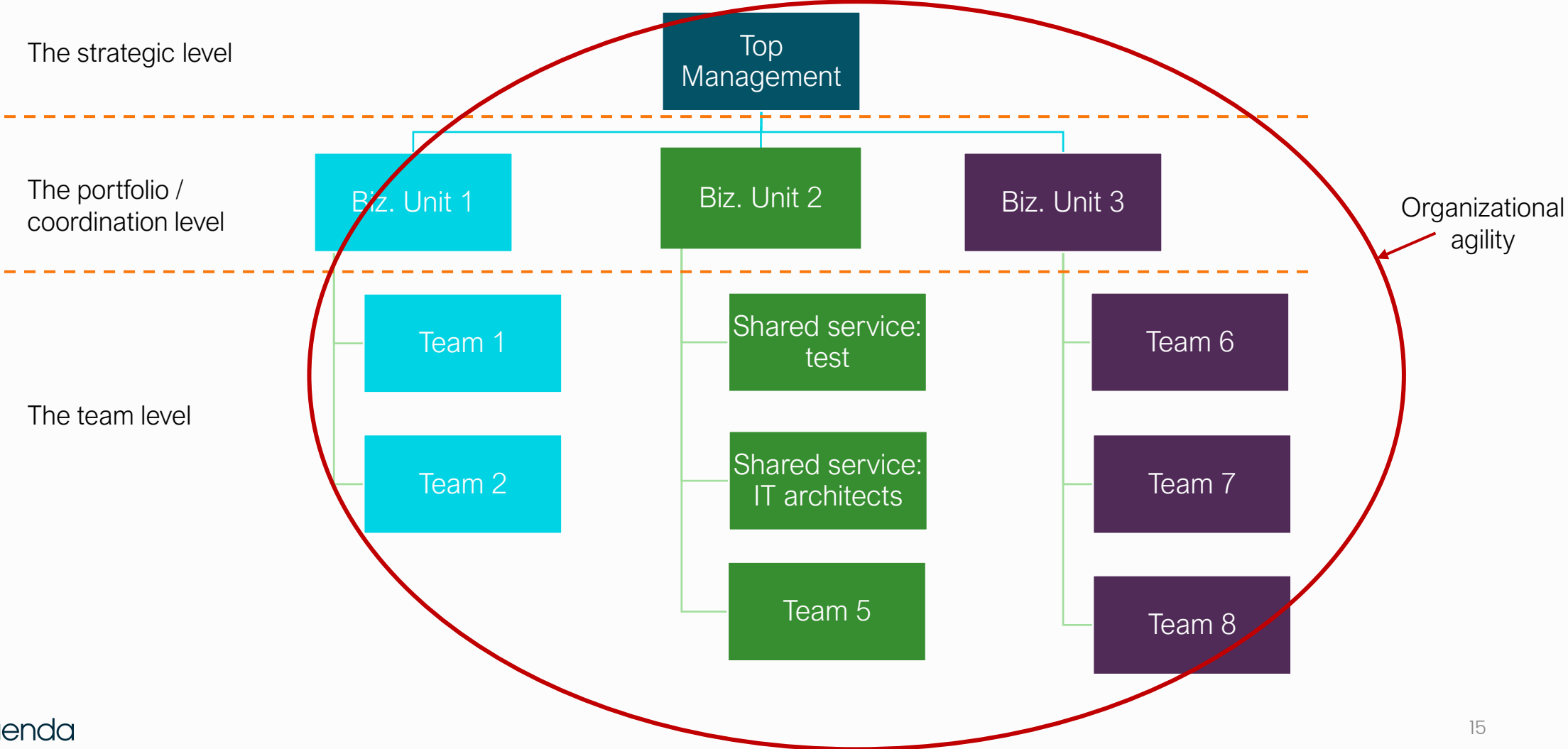
Team agility and organizational agility are two different things, and take place at 3 different flight levels



Team agility and organizational agility are two different things, and take place at 3 different flight levels

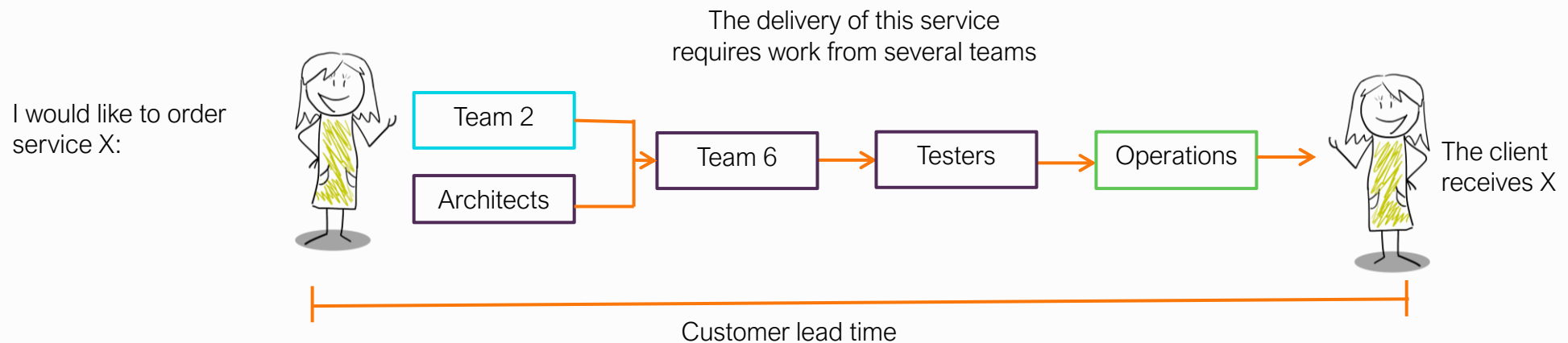
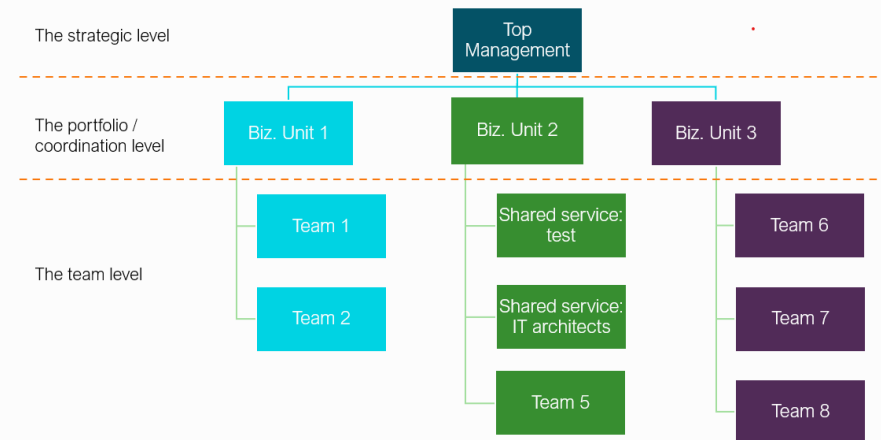


Team agility and organizational agility are two different things, and take place at 3 different flight levels



Whether you're agile or not, customers (internal or external) just want their goods...

- Organizational agility is about agreeing on priorities across departments and teams
- It can only happen if the leadership is on board
- Organizational agility stops when the first manager says, "I don't want to do that" (and gets away with it)



The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

Complexity in knowledge work

The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

Complexity in knowledge work

Say hello to a couple of flowstoppers



This is Peter:

- He's a highly skilled specialist that everyone is pulling and tearing at.
- He is what is known in Kanban as a "single point of failure".
- He's the only one who can do what he is specialized in.
- He rushes from one team to the next with his fire extinguisher.
- Peter is hardworking and does what he can. But he's the cause of many and long wait times.
- Sometimes an entire team can't move forward because he doesn't have time to help



And this is Mary:

- She's the boss, and that's because she loves having influence and being in charge.
- When it comes to prioritizing, Mary wants to "step in". She does so randomly, and her priorities often change.
- Mary also wants to be the one to approve deliveries and make strategic decisions.
- She's a busy lady who goes to a lot of meetings. That's what happens when you're the boss...
- That's why many teams are waiting for Mary's approvals and decisions so they can move on with their work.
- Meanwhile, people task-switch - what else would they do? (But it's just plain inefficient).
- Mary also likes to demonstrate decisiveness by giving her teams new, urgent tasks (push).

Here are a few more flowstoppers



Say hello to the PMO-team (could also be LACE):

- They really love processes, and many of the ones they've created work really well.
- They just love processes SO much that they sometimes invent new processes because they imagine it will improve things.
- Some of the processes are so cumbersome and time-consuming that people prefer not to use them.
- ...but they must, because PMO/LACE is in charge!
- Sometimes the process team forgets to talk to the people that do the actual work, and the process work becomes an academic exercise.
- Some processes actually result in wasted time.

Do you have the Outlook blues too?

- You know that thing about wall-to-wall meetings?
- Have you ever thought, "Why am I sitting here and when am I going to do some "honest work"?"
- Meetings can be defined as either operations or transaction costs. The more unnecessary meetings you can eliminate, the better.
- Any meeting that doesn't provide tangible value is a flowstopper.
- But hey! Meetings are a law of nature and show that you're important. Or are they?





**Things that slow down flow are dead
annoying and extremely common.**

But can you do anything about it?

The short answer is a big, resounding YES!

The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

Complexity in knowledge work

The slightly longer answer to understand flowstoppers and find solutions

Examples of flowstoppers

Some possible solutions

Complexity in knowledge work



Some general actions against flowstoppers

Optimizing flow based on Kanban's principles and practices

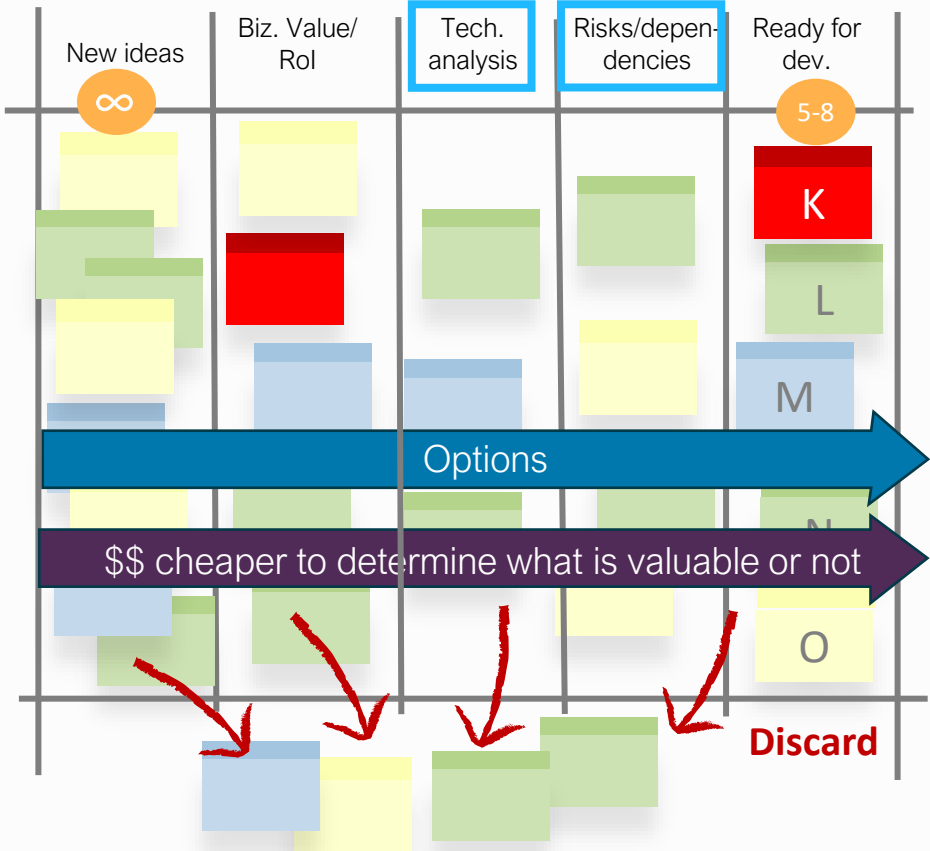
Kanban is and was always a flow system. The focus is on quantifiable outcomes documented with data

- Flow is a concept that is used more or less explicitly in all agile frameworks. But flow is the purpose – and thus an integral part – of the Kanban method.
- To use this purely flow-centric system as a starting point, I will start with showing how Kanban orchestrates the work with the backlog. I.e., the requirements that arrive to your team.
- Scrum and certainly SAFe are incorporating more and more Kanban. They have also discovered the power of the Kanban practices.

The whole idea of working so thoroughly upstream is to catch flowstoppers before they occur. It is simply a risk management strategy.

The client absolutely needs it, and the team can deliver it

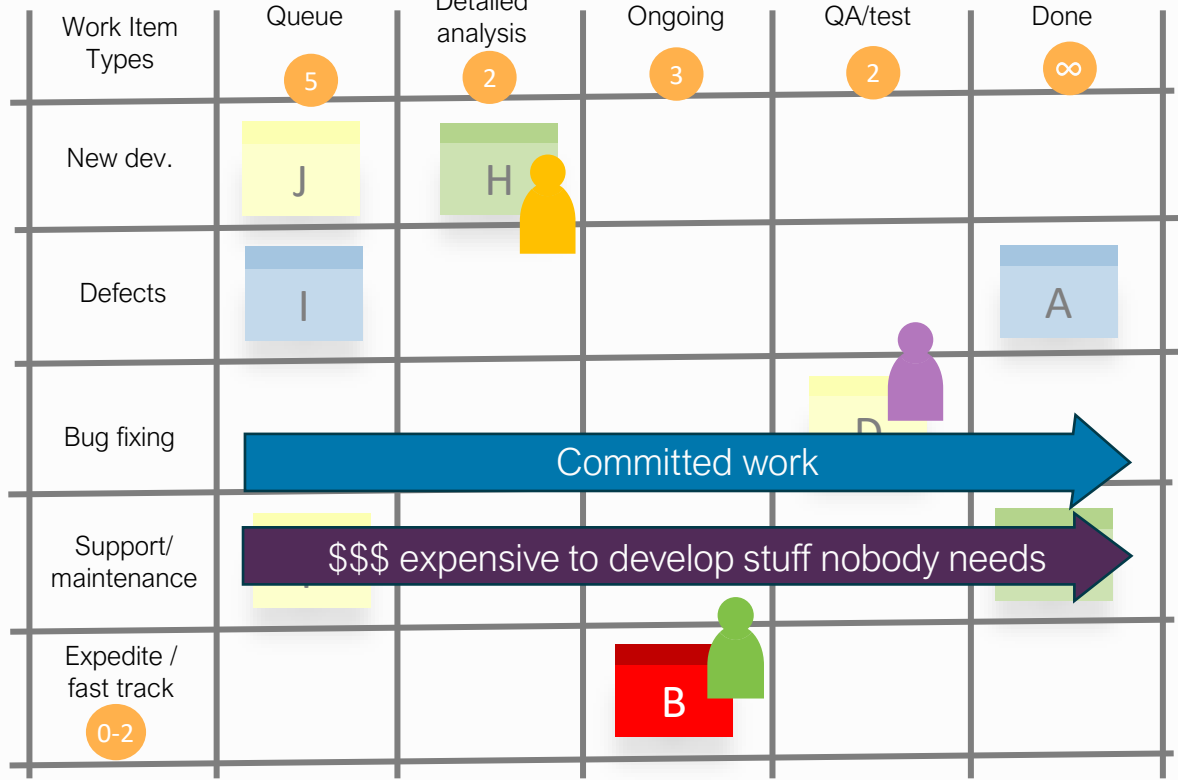
New requirements/ideas = upstream Kanban



There are often more tasks elsewhere. They're just further in the future

Her lives "Definition of Ready"


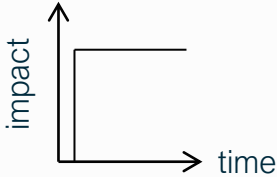
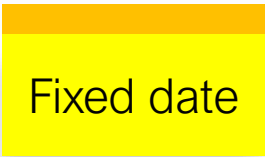
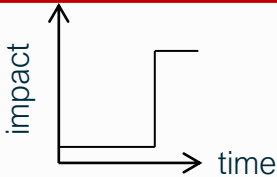

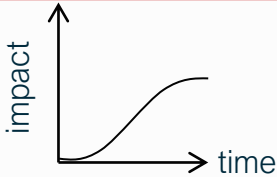
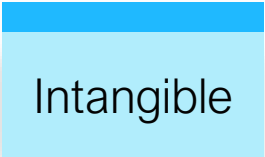
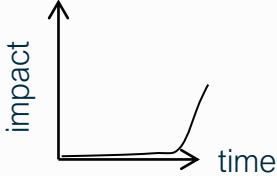
Delivery/work board = Downstream Kanban



You can easily set your goals and ambitions in cadences of, say, 2 weeks

Her lives "Definition of Done"

Using Class of Service and thinking Cost of Delay improves flow

Color	Function	Classes of service and how they are used
		Expedite Red: Is an “all hands on deck” activity, that must be solved NOW. It has immediate costs, if it is not solved. Can bypass all limits and rules on the board. Pushes other work aside. There should (hopefully) not be more than 1 expedite task on the board at the time. Preferably none
		Fixed date delivery Yellow: Costs will sky-rocket if we don't deliver by the deadline. PS! A deadline/fixed date in Kanban is not a random date. It is the date, when “something falls down” if we don't deliver on time
		Standard Green: Are the usual and ‘ordinary’ tasks that hit our desks – the tasks we were hired to solve. They become more important as time goes and costs of delay will slowly increase and then flatline
		Intangible Blue: Tasks with no external customer. They are our own investments in the future. Cost of delay is limited right now but could increase dramatically later. E.g.: Upgrading of a system to a newer version, removal of technical debt, automatization of a manual task

In Kanban, you use data to see trends and find your flowstoppers, but what to measure?



- First and foremost, we measure lead times which is the most important metric of all.
- Lead times represent reality and not gut feelings, crystal balls or best guesses.

Lead times show historical productivity.

(Not to be confused with estimates).

Source: Kanban University



When did we start it?



When did we finish it?

Ready

In Progress

Done

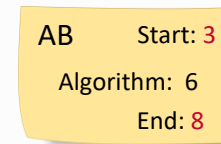


Step A (3)

Step B (2)

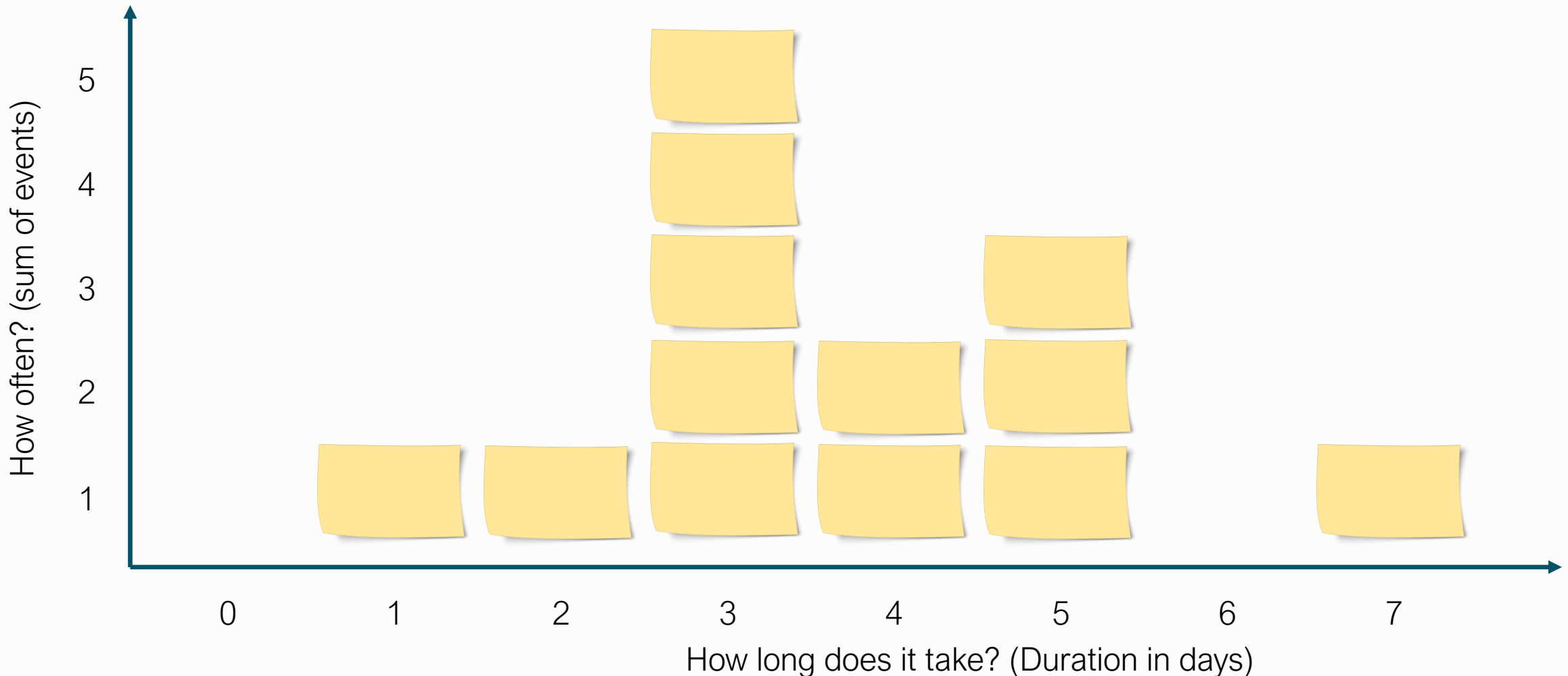
Lead Time = End date – Start date

AB Start: 3 Algorithm 5 End:	AB Start: 1 Algorithm 1 End:
M Start: 1 Algorithm 2 End:	ZW Start: 2 Algorithm 4 End:
JK Start: 1 Algorithm 3 End:	



Lead times are a distribution – not a bullseye.

The lead time distribution shows how consistently you deliver. High spread = high unpredictability





What else do you measure when you want to get a better grip on your flowstoppers?

- Throughput: **The number of completed tasks** in the measuring period.
- **The number of blockers** during the period and what it has cost in wasted time.
- **How much rework** in the period due to incorrect deliveries, misunderstandings, etc.

- **Number of errors** reported in the measuring period.
- **Number of errors** corrected in the period.

All metrics are collected over time, providing a clear picture of how consistently and predictably you deliver.

5 specific solution examples

Solution to Peter being a specialist bottleneck

- When you have dependencies on one or more specialists, you know it.
- Dependencies are predictable and shouldn't come as a surprise.
- Therefore, the tasks you solve must be carefully analyzed upstream before you start.
- If you use Kanban, you work in a structured way with your upstream Kanban.
- If you don't use Kanban, you can still adopt the upstream mindset and keep in mind that you should always check for dependencies before you start.
- If you know you can't complete your task without Peter's help, find out when he's available and make an agreement with him.
- Based on that knowledge, you plan when to start that task so it can be completed without getting blocked.
- Never start a task that you know in advance will be blocked.



Solution to Mary being a decision-making bottleneck

- Mary has – probably without realizing it – become a huge bottleneck and the cause of unnecessarily long wait times.
- She is the cause of 2 different kinds of flowstoppers. At least.
 1. She wants to be part of the prioritization process, and does it randomly
 2. She wants to approve her teams' deliverables and make strategic decisions.
- The negative effect of this can be minimized or even removed. It just requires that you make some explicit agreements with Mary.
 1. For example, you agree with Mary to look at the tasks that are upstream once a week.
 - a. Mary participates in a recurring (replenishment) meeting and decides what is at the top of her hit list. Before you have started working on the task.
 - b. You agree with Mary that she will not change her mind about prioritization once the work has started.
 2. To avoid waiting for approvals or decisions longer than necessary, you agree some timeslots with Mary where she will be available for decision-making and approvals.
 - a. For example, time could be reserved on Mondays, Wednesdays and Fridays from 13:00 – 14:00.



Solution to the PMO team (or LACE) being a process bottleneck

- If you're in a pure process and methodology team, you can get carried away and create principles and processes that are more of a hindrance than a help.
- To address this, again, you need to make explicit agreements. It may take some management power to make this happen.



What you (preferably) need to agree on, is:

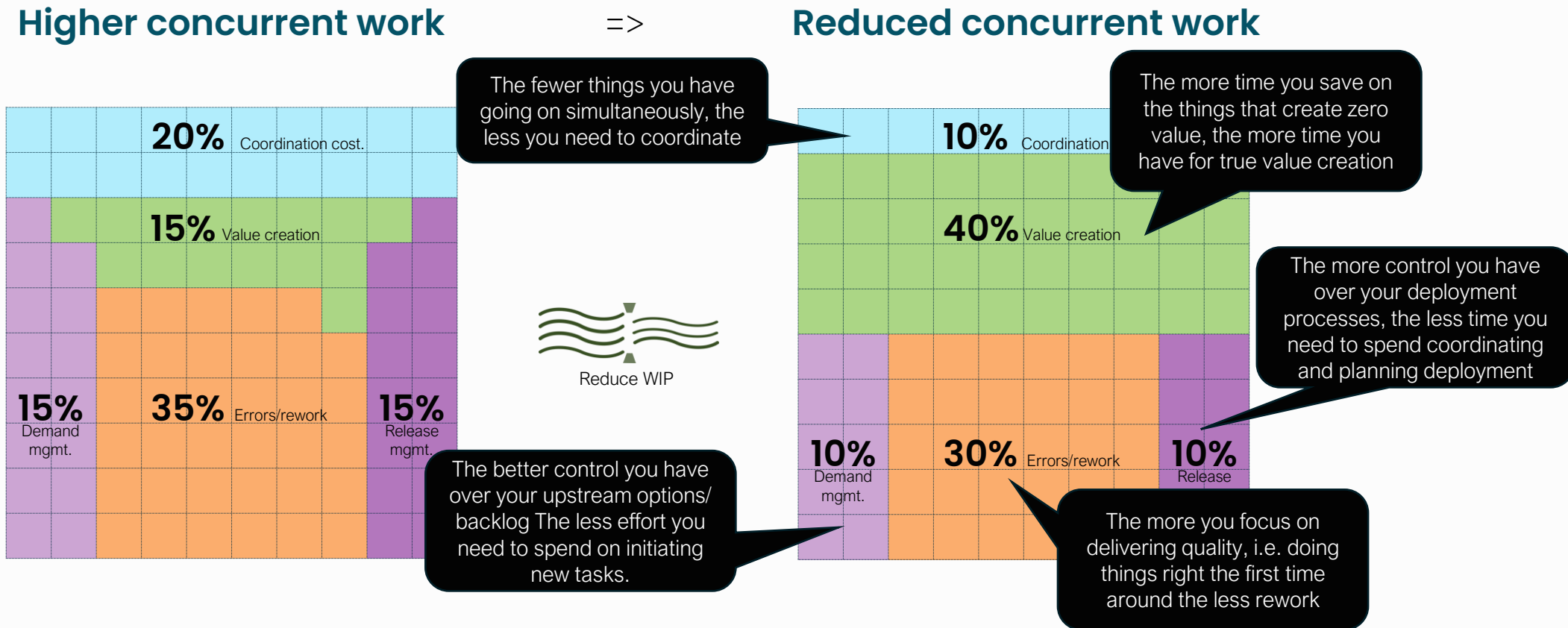
- That there is no "one-size-fits-all". Also, not on the process front.
- No two projects or initiatives are the same. Therefore, you should avoid rolling out the entire process palette for all of them. It should depend on the context.
- Don't create new processes unless you are able to explain exactly what problem you want to solve with it.
- Don't use inexplicable processes just because "it's stated in the method or framework".

Solution to "Outlook blues" being a scheduling bottleneck

- My belief is that most people go to meetings that are a waste of time. They do so because someone invited them and because they made sense at the time. Now they don't, but no one challenges the need for them.
- The more projects, initiatives or tasks you have going on at the same time, the more prioritization meetings you will need.
- The more projects etc. going on at the same time, the greater the need for meetings to fight for the same scarce resources.
- If you're not in control of your processes, the need for coordination meetings grows.
- If you want to get rid of the Outlook-blues, the best thing to do is to cut down on the number of ongoing projects, etc. Then there's less to coordinate.
- You should also go through your calendar with a fine-toothed comb and determine which meetings are absolutely necessary and which ones no longer make sense to attend.
- Take a good hard look at your processes, such as those that govern how you receive and prioritize new tasks (upstream) and deploy them (downstream). This will automatically reduce the need for meetings.



A concrete example: 50% reduction in coordination costs in 6 months in the areas where Kanban was introduced



With permission from Squirrel North: <https://www.squirrelnorth.com/post/the-roi-of-kanban-part-2>

Dependency bottlenecks: Cross-cutting dependencies need to be brought into the light

Examples of explicit rules for this board

Dependencies



Only dependencies that can result in missed deadlines, projects or teams not moving forward, delayed deployment, etc. should be on the board

Critical dependencies



Activities that clash. For example, 2 teams that need the same key person, who doesn't have time for both, need to be on the board. Management must prioritize these tasks

New Post-it



In the "Key tasks" column, add a large Post-It with a short description of which tasks are in focus in the current period

Put a small blue Post-it on a yellow or red one when they enter the board



The cards on the board have information about:

- When they were added to the board
- Description of the activity that another team or person in the team needs to complete
- The week/date the activity is due

	Key tasks	Wk 24	Wk 23	Wk 22	Wk 21	Wk 20	Wk 19	Wk 18	Done
Team 1	Projekt X		XXXXXX XX					XXXXXX XX	
Team 2	Feature A			XXXXXX XX			XXXXXX XX		
Team 3	Projekt Y	XXXXXX XX				XXXXXX XX		XXXXXX XX	XXXXXX XX
Team 4	Feature B			XXXXXX XX			XXXXXX XX		XXXXXX XX
Team 5	Projekt Z				XXXXXX XX				XXXXXX XX XX
Mgmt.								XXXXXX XX	
Other biz. units				XXXXXX XX				XXXXXX XX	XXXXXX XX



Time to recap



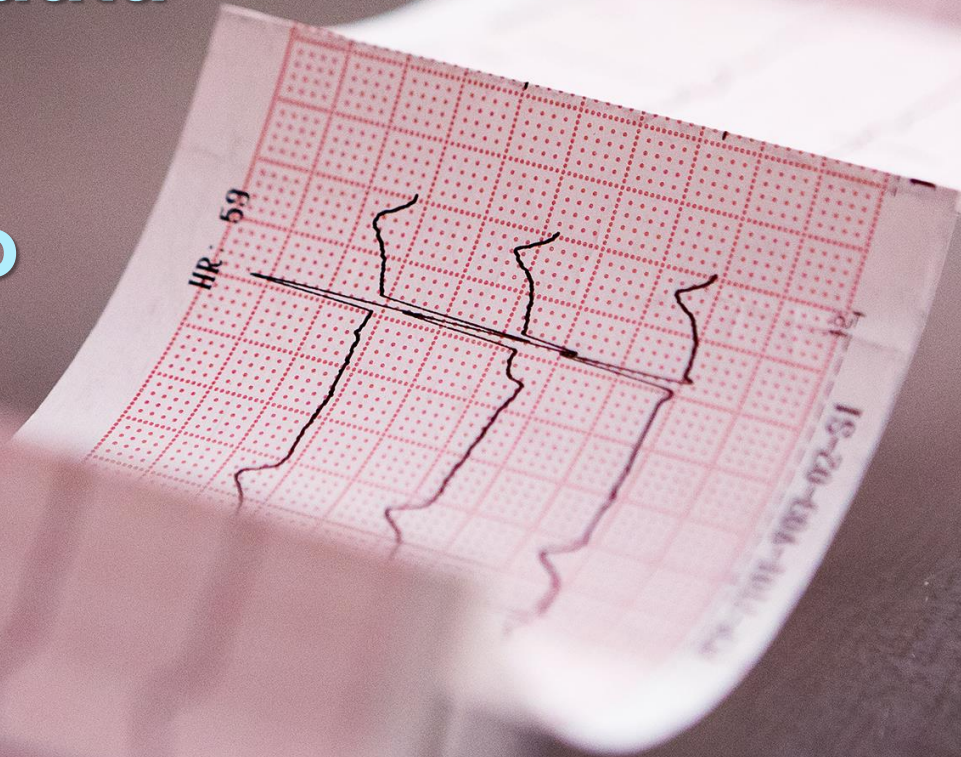
General actions against flowstoppers...

- Perhaps most importantly, measure your lead times over time and look for inexplicable variance.
- Ensure thorough and structured requirements management (upstream).
- Stay focused on blockers and analyze why they occur, what the cost is, and what action to take.
- Strengthen your focus on quality and measure the types and sources of errors to minimize rework.
- Manage and trim your processes to minimize handoffs and wait times and adapt them to the real world.
- Use data to make informed decisions

Conclusions

- All projects, initiatives or whatever you call it are hit by flowstoppers.
- Many delays that occur are self-inflicted. They are caused by poor processes, shifting priorities, bottlenecks and other things in your system that you could do something about if you wanted to.
- Proactively managing flowstoppers is an effective way to manage risk.
- No framework or method can...
 - ...change a bad culture, bad behavior, lack of leadership etc., itself. Only you can do that.
 - ... make complex things less complex, but greater transparency can make complex stuff easier to manage..
- Removing the things that slow down the free flow can be a bit of a challenge. But it pays off!
- An evolutionary approach is 100% certain to be more sustainable than a revolutionary approach.
- Data is the best basis for robust decisions. Gut feelings, opinions and crystal balls are not enough. Because...
 - ...only data is reality, and reality always wins!

Example of how data
can be used.
In this case in a
Kanban scenario



How we measure improved maturity

KMM Practices Assessment tool

KMM Practices Assessment Introduction

What is the KMM Practices Assessment

The KMM Practices Assessment (KMM-PA) is a tool to assist you in the journey towards improved organizational maturity according to the Karban Maturity Model (KMM) developed by David J Anderson and Teodora Bocheva [1] as a means to democratize the adoption of the Karban Method. The PA allows you to easily assess your team's adoption of the more than 100 specific practices in the 6 fundamental Karban practices and thereby provide a measure of the team's maturity according to KMM as summarized in the KMM Practices Poster [2].

Why perform the assessment

At the core, the Karban Method is data-driven. By implementing the 6 fundamental practices, Karban seeks to improve the flow of work using actual data about what is going on. Naturally, the degree of adoption of the 6 fundamental practices varies from team to team and within a team it varies over time but exactly how?

In line with the data-driven nature of the Karban Method, the KMM-PA is used to obtain a tangible view on what the degree of adoption actually is using real-world data provided by the individual teams. Only this way, an actionable plan for improvement can be made.

How to use KMM-PA

KMM defines a number of specific practices under the umbrella of the 6 fundamental practices. The assessment is organized as a questionnaire for each of the 6 fundamental Karban practices in their separate sheets where the degree of adoption for each individual specific practice is measured. The measurement is performed by simply selecting an answer from a drop-down list next to each specific practice.

- None: the specific practice has not been adopted at all
- Some: the specific practice is partly adopted
- All: the specific practice is fully adopted

When the degree of adoption has been assessed for all specific practices within a fundamental practice, the assessment for that fundamental practice is marked 'Completed'. If some specific practices are left unassessed, the status of the assessment for that fundamental practice is 'Incomplete'.

You must complete the assessment of all specific practices for each of the 6 fundamental practices to obtain an outcome of the

KMM Practices Assessment Summary

Overall Assessment Summary

Strict Maturity	Maturity Completeness	Implementation Completion
-	0,00	0%

Assessment Summary Per Practice

Practice	Strict Maturity	Maturity Completeness	Implementation Completion
Visualize (VZ)	Not defined	0,00	0%
Limit Work in Progress (LW)	Not defined	0,00	0%
Manage Flow (MF)	Not defined	0,00	0%
Make Policies Explicit (MP)	Not defined	0,00	0%
Implement Feedback Loops (FL)	Not defined	0,00	0%
Improve Collaboratively, Evolve Experimentally (IE)	Not defined	0,00	0%

Comments and Notes

enter your own comments and textual evaluation of the assessment

Improvement Points

list the prioritized improvement points that should be addressed as a result of the assessment

References

[1] Karban Maturity Model: A Map to Organizational Ability, Resilience, and Sustainability, 2nd edition (2020)

[2] Changes to the specific practice IDs are seen in the poster [2] vs. the book [1]. These are as follows (and this KMM-PA tool is designed with the poster):

Fundamental practice	Specific Practice	ID in book	ID on poster

Practice 1 Visualize (VZ)

Maturity Level	ID	Specific Practices
0	Consolidation	VZ 0.1 Visualize a person's work by means of an individual karban board VZ 0.2 Visualize basic work item related information on a ticket
0>1	Transition	VZ 1.1 Visualize work for several individuals by means of an aggregated individual karban board VZ 1.2 Visualize aggregated initial policies VZ 1.3 Use avatars to visualize individual's workload
1	Consolidation	VZ 1.4 Visualize the work carried out by a team by means of a team karban board VZ 1.5 Visualize basic policies
1>2	Transition	VZ 2.1 Visualize progress using a horizontal position on an emergent workflow karban board VZ 2.2 Visualize work types by means of card colors or board rows VZ 2.3 Visualize board work items, defects and rework VZ 2.4 Visualize work item aging VZ 2.5 Visualize dependencies on another service or system VZ 2.6 Visualize dependencies on shared services using avatars VZ 2.7 Visualize basic service policies
2	Consolidation	VZ 2.8 Visualize constant WIP (CONWIP) on an emergent workflow delivery karban board VZ 2.9 Visualize concurrent or unsorted activities with checkboxes on the ticket VZ 2.10 Visualize optional, unsorted, potentially concurrent activities using two columns of checkboxes on the ticket VZ 2.11 Visualize optional multiple workboard, measurement activities performed by specialist teams using partial rows within a column on the board VZ 2.12 Visualize multiple services using a karban board VZ 2.13 Visualize multiple services by means of aggregated service-delivery overview board
2>3	Transition	VZ 3.1 Visualize Ready to Control status, also known as Ready to Pull VZ 3.2 Visualize receipt acceptance criteria, also known as stop criteria

Assessment Summary

Overall Practice Maturity Level: Incomplete

Overall Practice Implementation Completion: 0%

Overall Practice Maturity Completeness: 0,00

Level of completion for implementation of all specific practices. Degree of maturity completeness, irrespective of strict maturity level achievements.

Implementation Completion per Maturity Level

- Introduction
- Summary
- Practice 1 - VZ
- Practice 2 - LW
- Practice 3 - MF
- Practice 4 - XP
- Practice 5 - FL
- Practice 6 - IE

How we measure improved maturity

An example from one of the teams we have worked with

Overall Assessment Summary

Strict Maturity	Maturity Completeness	Implementation Completion
1	2,36	47%

Comments and Notes

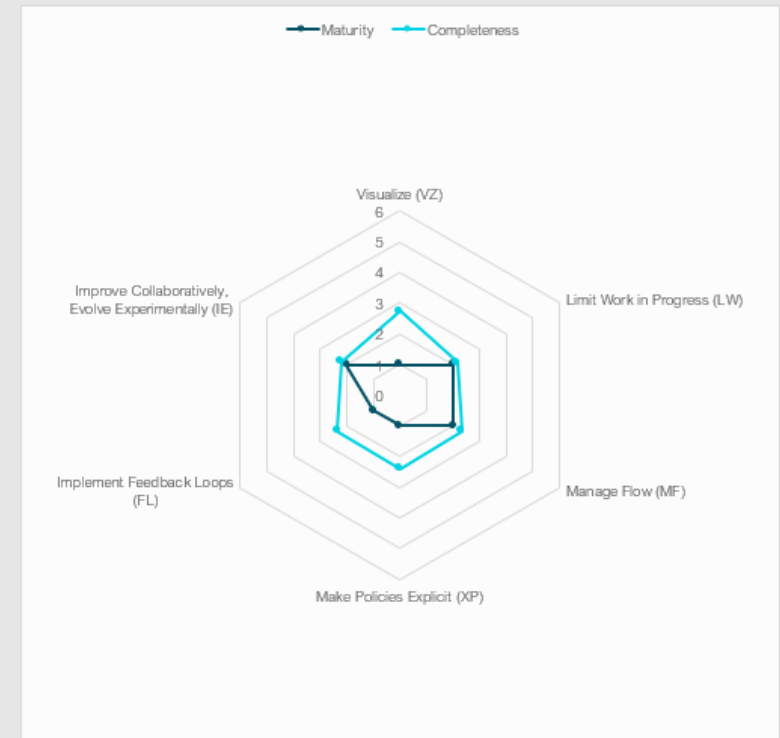
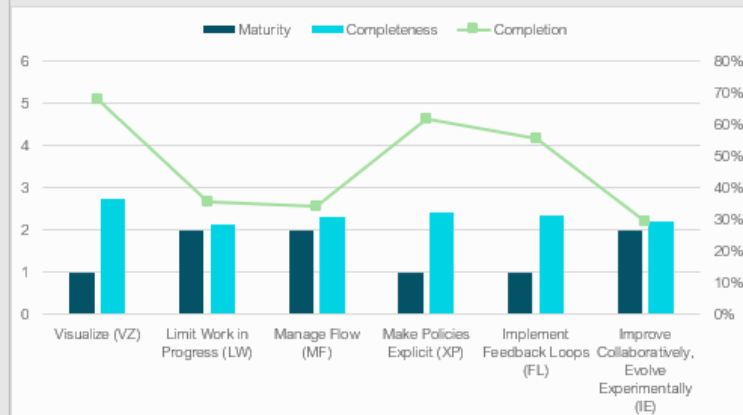
This is assessment number 3
 XP 3.2 and 3.3 policies for discarding activities upstream and aborting activities downstream. Work with this has been started. Follow up during assessment no. 4 in May

Improvement Points

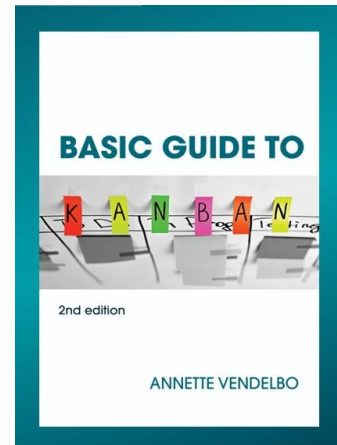
VZ 2.11 Visualize optional multiple unordered, nonconcurrent activities performed by specialist teams using partial rows within a column on the board
 VZ 3.6 Visualize aborted work
 XP 2.5: Define policies for managing defects and other rework types

Assessment Summary Per Practice

Practice	Strict Maturity	Maturity Completeness	Implementation Completion
Visualize (VZ)	1	2,74	68%
Limit Work in Progress (LW)	2	2,14	36%
Manage Flow (MF)	2	2,32	34%
Make Policies Explicit (XP)	1	2,40	62%
Implement Feedback Loops (FL)	1	2,33	56%
Improve Collaboratively, Evolve Experimentally (IE)	2	2,20	29%



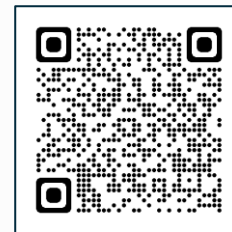
...if you want to know more about
Kanban and agile transformations



www.agilagenda.com



Den agile agenda



/company/agilagenda



/agilagenda





Annual Conference

Denmark — The Netherlands — Belgium — Luxembourg

Perspectives

Denmark ²⁸ May

The Netherlands ³⁰ May

Belgium ³⁻⁴ June

Luxembourg ⁶ June

ba-beyond.eu

Photo by Matt Botsford on Unsplash

