

How to Eliminate an Existing Backlog using Lean Thinking



CIPMM National Workshop

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Agenda

1. Introduction and Objectives
2. Causes of Backlogs; backlog prevention
3. Strategies once you have a backlog
 - a) Add resources
 - b) Strategies Management can try
 - c) Streamline the process
 - d) Eliminate failure demand
 - e) Increase focus, reduce switch-tasking
 - f) Re-assign tasks
4. Wrap-Up and Questions

Definitions: Backlog

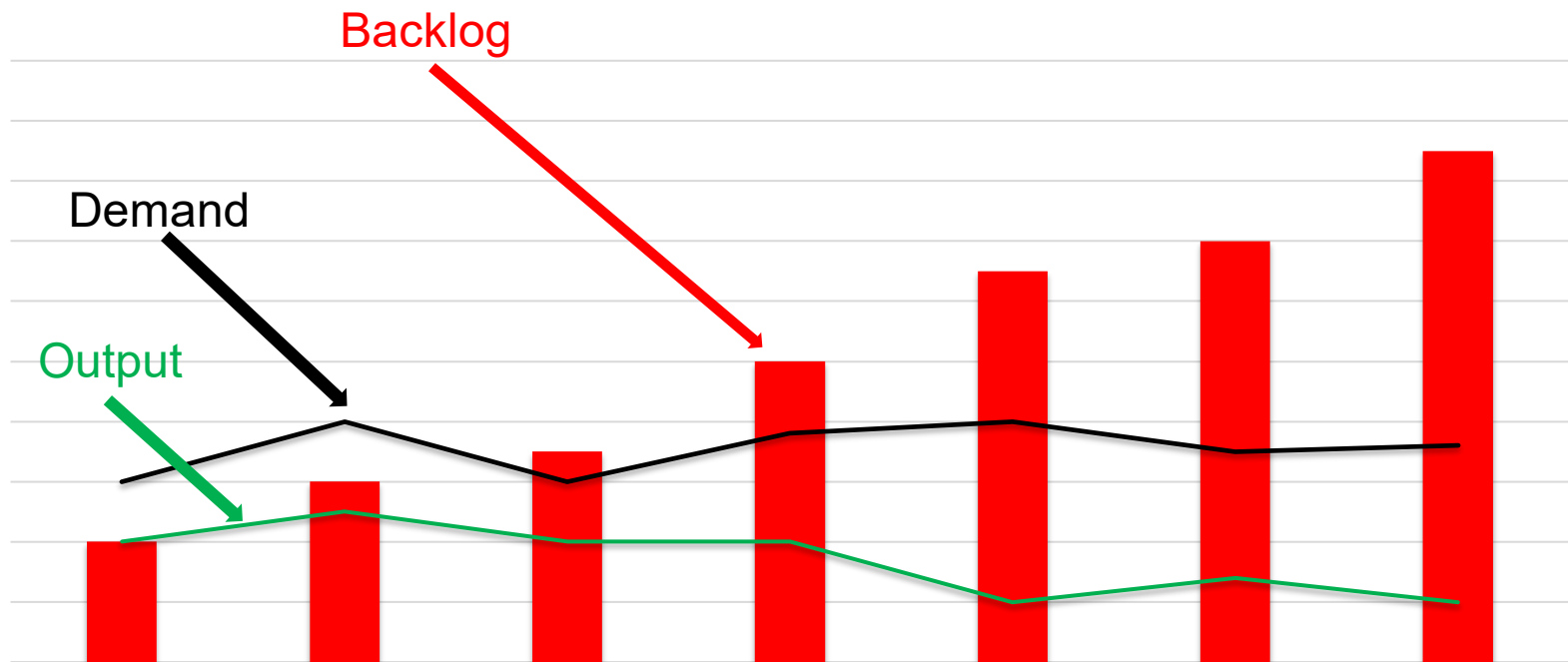
“A large number of things waiting to be done”

“An accumulation of something, especially uncompleted work or matters that need to be dealt with”

“A buildup of work that has not been completed in a timely fashion”

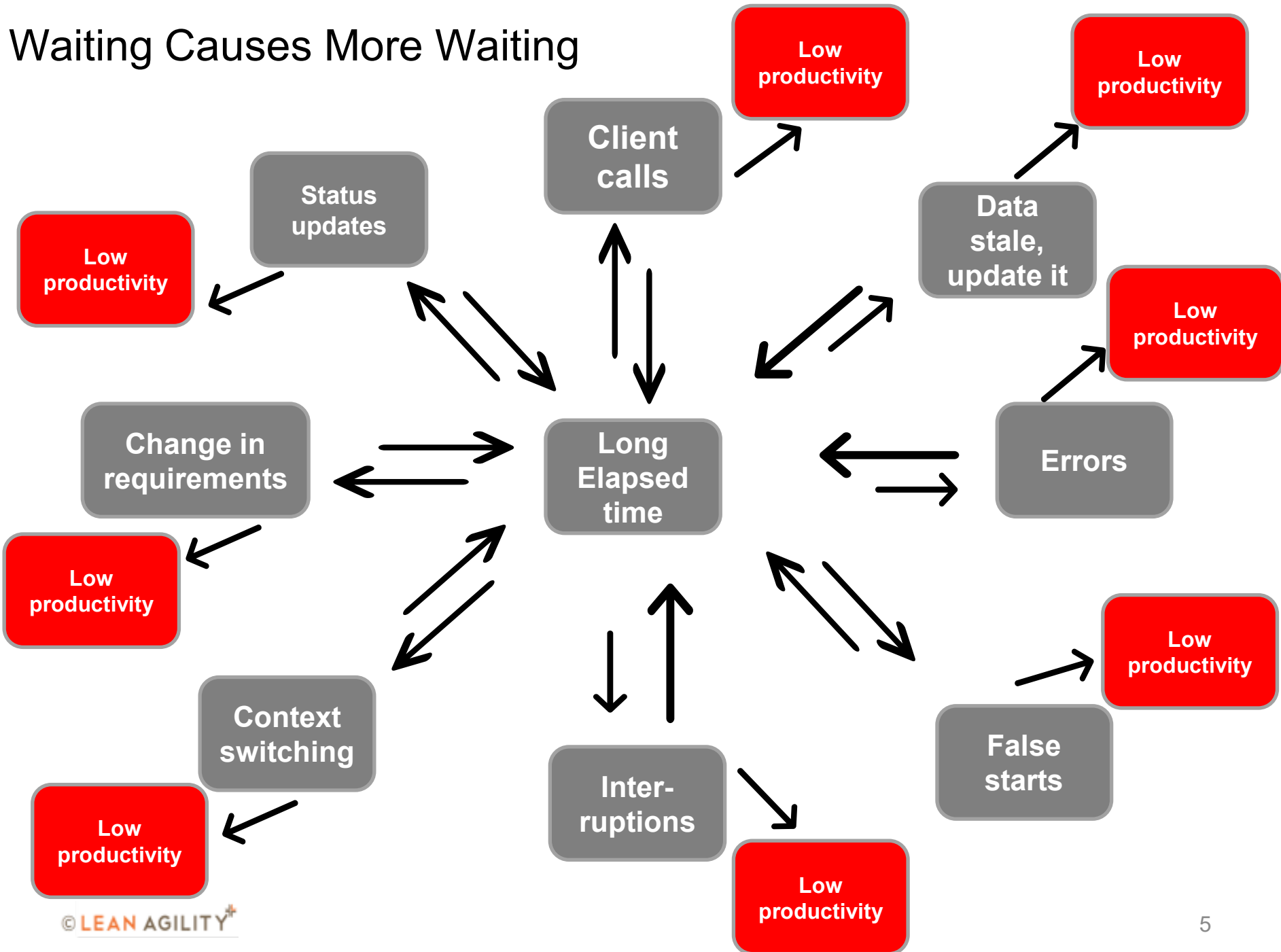
Backlogs Grow Over Time

When demand exceeds output and backlogs grow....



...output often drops as a result.

Waiting Causes More Waiting



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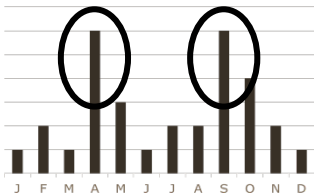
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How Backlogs Develop

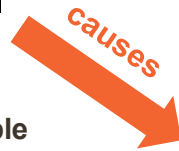
VARIATION

Variation in:

- volume of work
- # of resources available
- skill profile
- complexity of work
- effectiveness of tools
- other?



Human Productivity



UNREASONABLENESS

2. Overwhelmed team, thus reduced productivity



repeat Steps 2-5, fall further behind



5. Fewer files finished, a growing backlog



WASTE

3. Team spends its reduced capacity on non-value added, preventable, work (FAILURE DEMAND)

- Fixing errors
- Clarifications
- Re-drafting
- False starts
- Looking for information
- Unnecessary approvals
- Excessive processing



4. Team spends capacity on:
 - Client progress-chasing calls
 - backlog reporting



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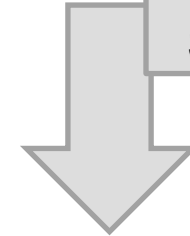
We have a Capacity problem



How to Fix the Capacity Problem?

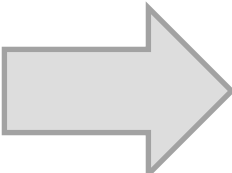


1st Easy Solution



	Same Resources	More Resources
Same process	Not Smart Problem keeps getting worse.	Easy solution It works but costs money so not an ideal long term solution.
Improved process	Great solution Use people's brain to find better process. This is where Lean excels.	Best of both worlds

2nd Best Solution



Lean

Bonus

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More Resources

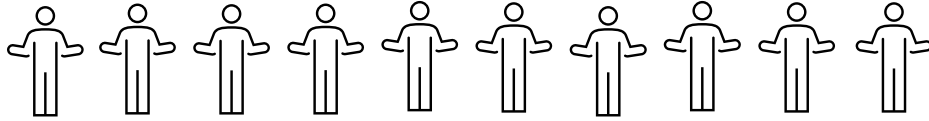
- Overtime
- Temporary staff
- Borrow people
- Pull back loaned people
- Bring back retired people
- Bring back promoted people
- Shift vacation (with agreement)

**Often a complicated
and time consuming
endeavour**

Diminishing Return of Adding More Resources

Current state

Team of 10 people

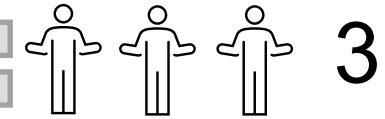


Efficiency

30%



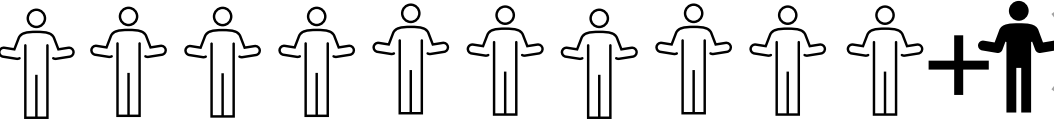
Effective team



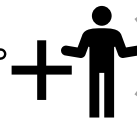
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Scenario 1: Hire

Team of 10 people



Hire one extra person

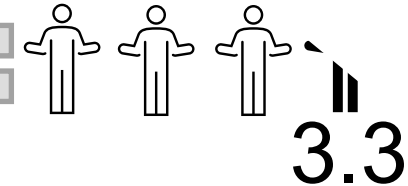


Efficiency

30%



Effective team

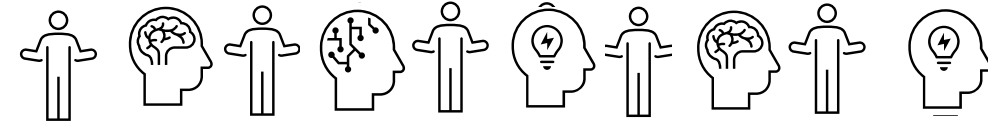


3.3

Spend time training, Long term cost, High turnover

Scenario 2 : Improve Process

Team of 10 people



Focus on process improvement

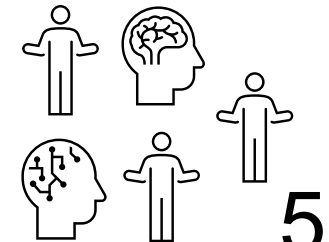


Efficiency

50%



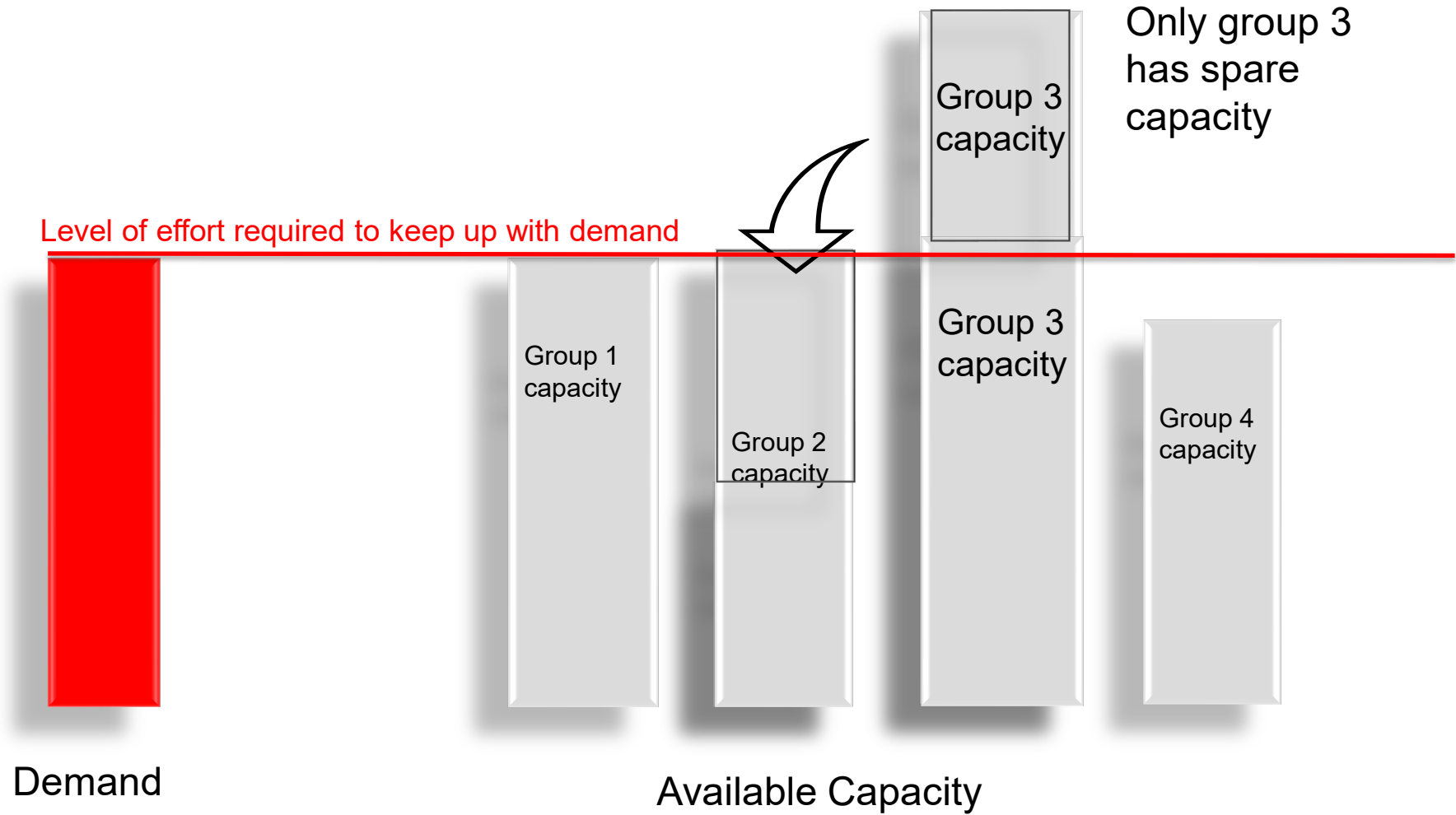
Effective team



5

Spend time improving, No long term cost, reduced turnover, fully trained employees

How To Re-assign People To Bottleneck?



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Some Initial Tactics

1. Ask for amnesty while working on backlog. Tell clients what you are doing with the backlog.
2. Clean the backlog – identify your actual, active, backlog
 - a) Which files are obsolete, abandoned – subtract them from your backlog
 - b) Which files are dormant – clients are not asking for it – segregate these into a “Dormant pile”
3. Prioritize the backlog – speak to your clients
 - a) Which files can wait? If you delivered it now, the client wouldn’t be ready to accept/use it anyhow because they are facing their own backlog – segregate these into a “Second Wave Pile”, set a revised due date.
4. Rank the files in the backlog by importance vs effort
 - a) Address first: Important & Easy – create an “Important & Easy” pile. Finish these asap.
 - b) Address next: Important & Difficult - create an “Important & Difficult” pile. Finish these next, ideally in a single focused, uninterrupted sitting.
5. For your first two waves, confirm/tighten scope – to reduce effort required and process the file first time through (FTT)
 - a) Confirm with client Job to be Done (Desired Outcome) of each file. Has it changed? Change it. Can it be de-scoped? De-scope it. Is there an alternative way to meet the JTBD? Use it.
 - b) Has the data in the request aged? If so, make client update their data before you begin.
 - c) Set a review huddle date with client to get feedback and make edits/changes on the spot – try to complete the file in one, interrupted sitting.
6. Complete WIP files that are almost finished (after doing Step 5)

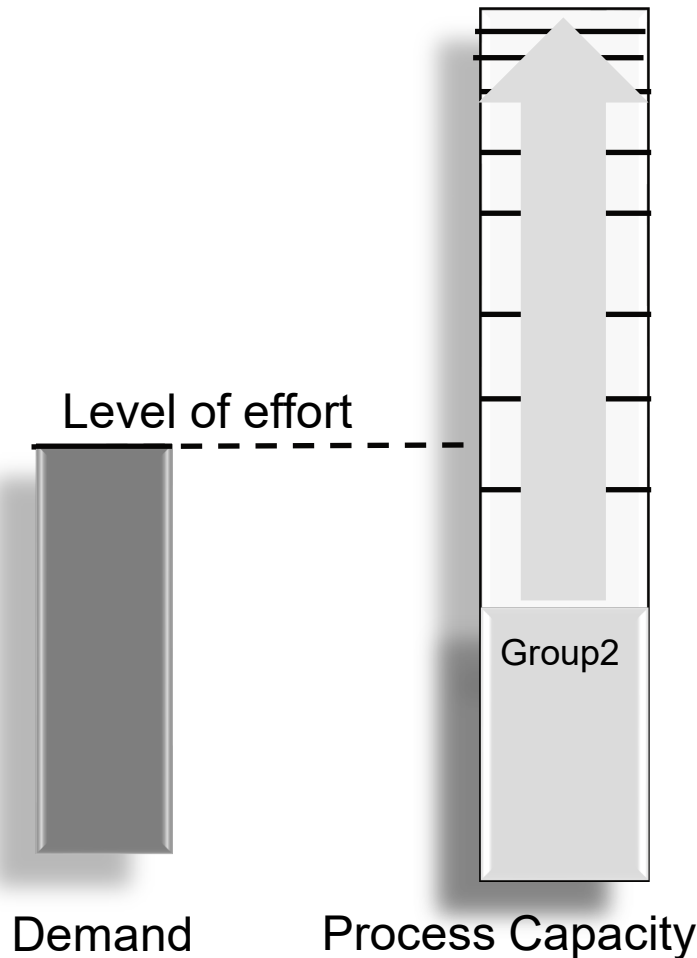
Efficiency Improvement Target

1. Today: we have a total of 120 files in our system; 4 people to do the work
2. Reasonable working inventory = 20 “medium” files
3. Currently keeping up with intake (20 new per week), but not making progress on historic backlog
4. Want to reduce total inventory to 20 files within 10 weeks – need to clear 100 files
5. $100 \text{ files} / 10 \text{ weeks} =$ we need to complete 10 files per week more than intake
6. = each team member needs to complete 2.5 more files per week than intake (5 intake + 2.5 backlog)

Efficiency Target: how can we free up enough time to do an extra 2.5 files per week, per person, without heroics? (Increase efficiency by 50%)

This is a “brainstorming/thinking”, not performance, target.

Common Management Strategies



Eliminate or transfer lower value tasks to other. E.g. data entry, filing.

Always feed your bottleneck. Never let it wait for work.

Eliminate or delegate status updates, progress-chasing, incoming questions progress-chasing

Postpone non-file work to other times, or delegate it to others

Create uninterrupted time for deep focus work/reduce switching. Resolve files in batches of similar themes

Lower standards if appropriate

Eliminate false starts and task switching. Management answers their questions promptly to prevent task switching

Reduce over-delivering on client needs

Increase usability of client forms, templates, instructions so they get it right 19/20 times without help

Eliminate internal errors. Create clear work instructions.

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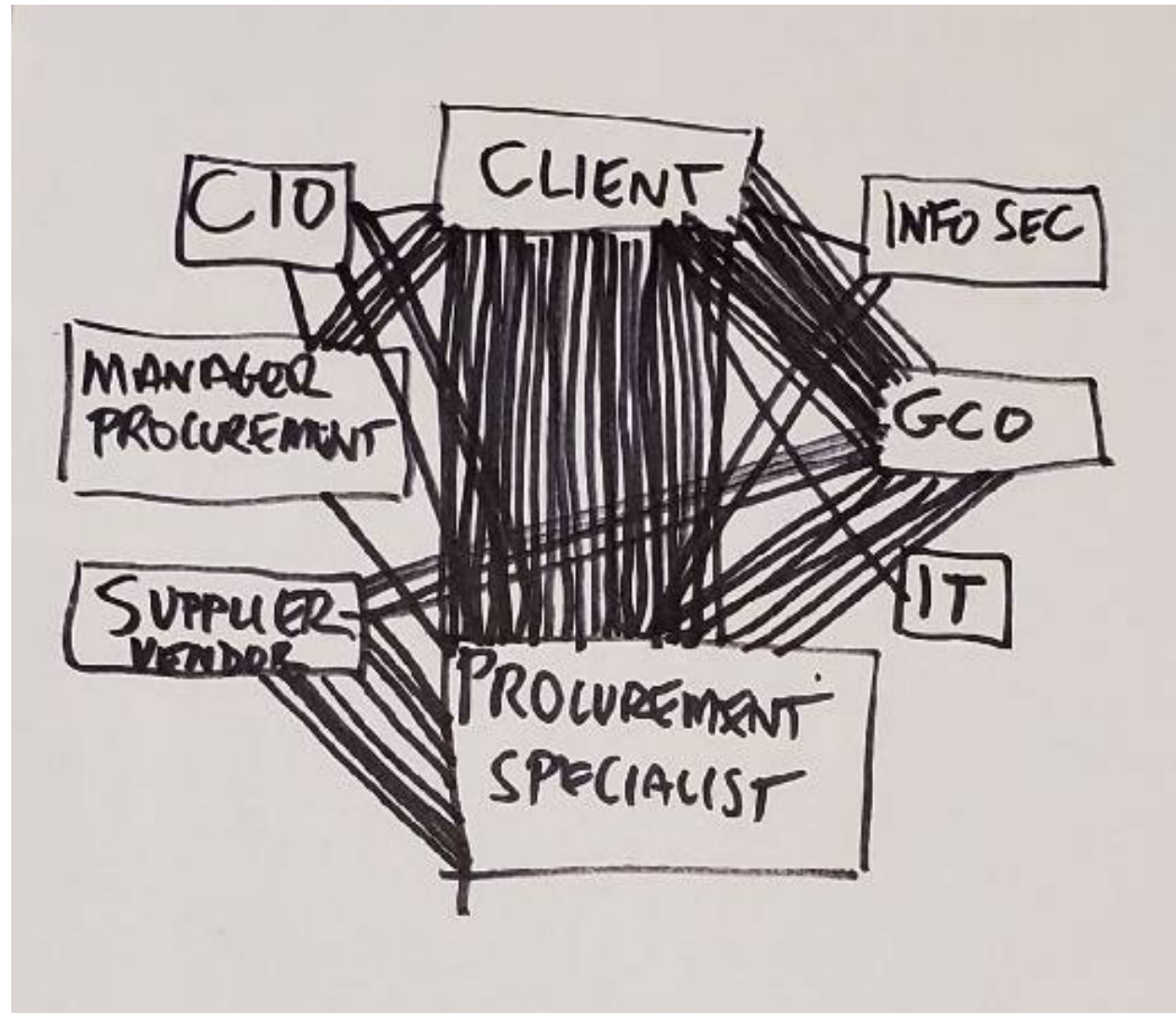
The Problem

Procuring Cloud Software
> \$ 100k

- Approximately 100 steps/handoffs
- 3-5 months of elapsed time
- Unhappy clients, procurement staff
- Procurement staff overloaded
- Slow process affecting delivery of core business

NOW:

- 3 weeks elapsed time from start to finish, by default.
- No heroics.
- Procurement staff happier, less-stressed.
- Clients delighted.



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Failure Demand: drains capacity and consumes time but does not add value

Type	Example	Waste
1. Something not done	Document, information missing – go find it	Defect
2. Something not done right	Wrong information, misplaced info – redo it	Defect
3. Something is not clear	Unclear instructions, requirements – go get clarification	Defect
4. Something takes too long	Chasing progress, answering	Waiting & Excessive Processing



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**Too many
tasks at
same time...**

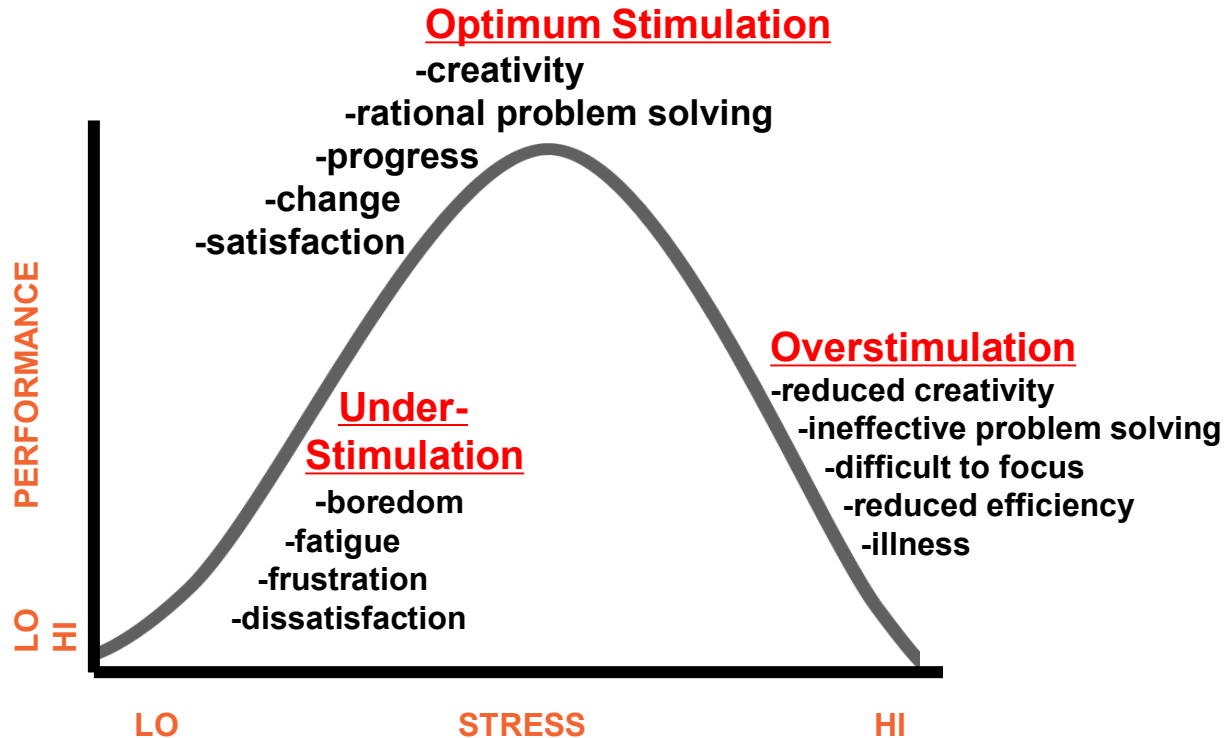
When we “multi-task*”, we get less done.
*actually, “switch-task”

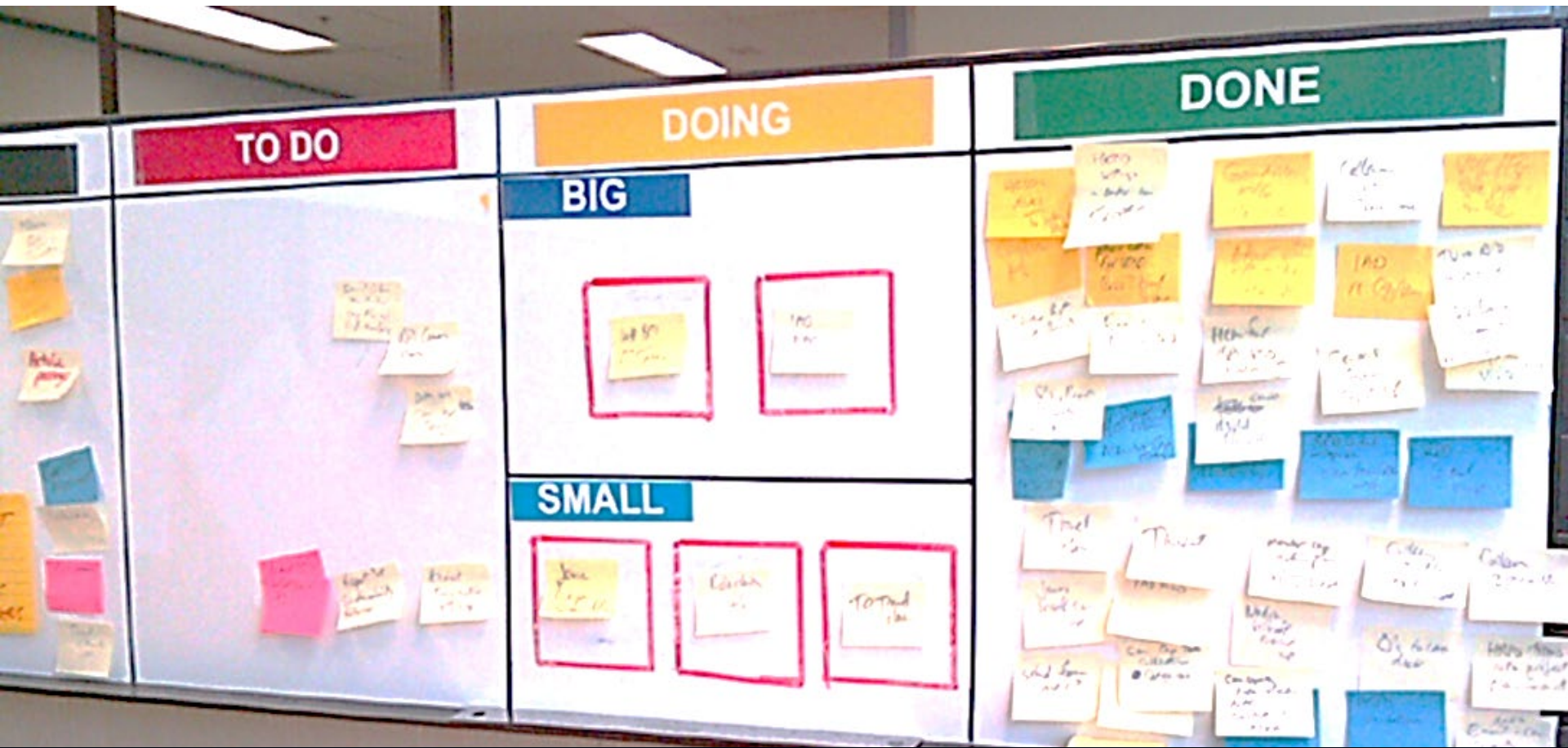
Cost of Context Switching

# simultaneous projects	% of time available for each project	% time lost to context switching	Hours per week lost (per person)
1	100%	0%	0 hours
2	40%	20%	6 hours
3	20%	40%	12 hours
4	10%	60%	18 hours
5	5%	75%	22.5 hours

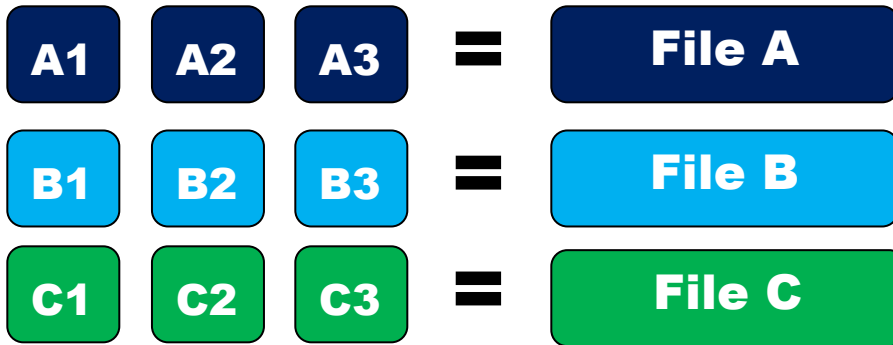
From: Weinberg, Gerald M. *Quality Software Management* (New York: Dorset House)

Yerkes-Dodson Curve





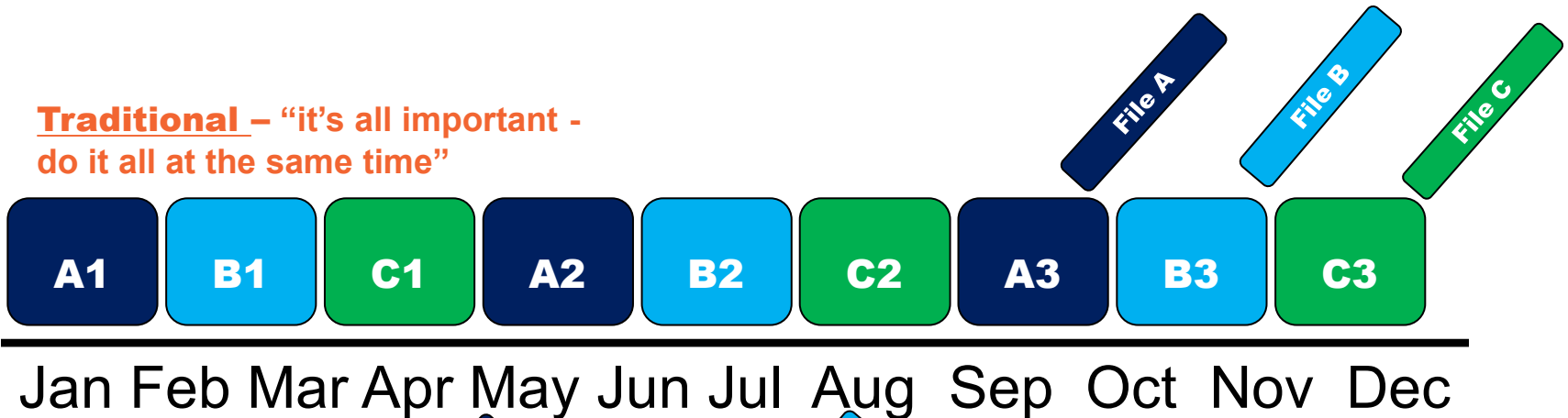
Optimize your work in progress to increase focus and productivity



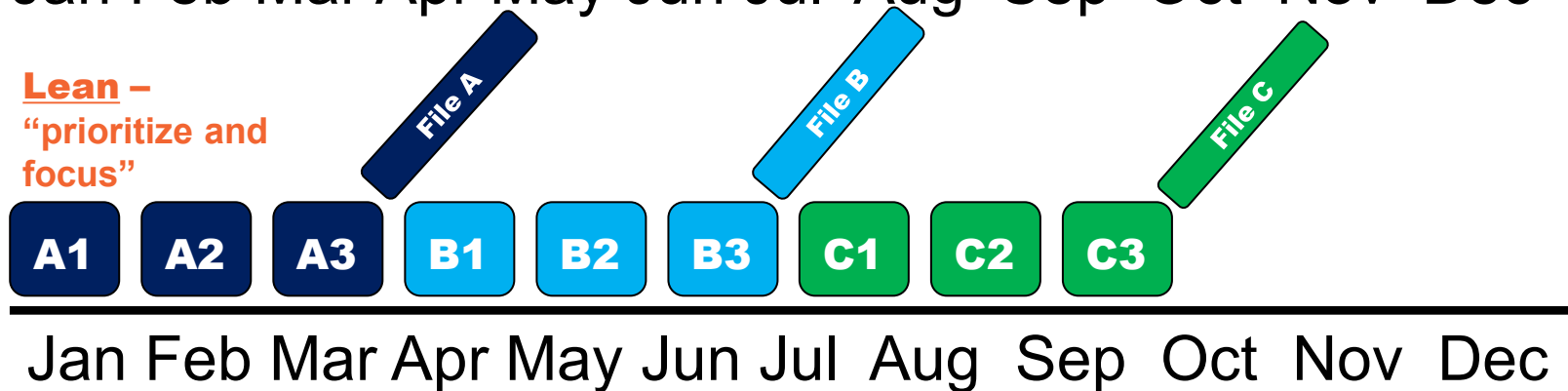
Lean Approach:

- Less “context switching”
- faster
- less effort
- less rework

Traditional – “it’s all important - do it all at the same time”



Lean – “prioritize and focus”



INTERRUPTIONS

Interruption Log / Registre d'interruptions

Page

Sur / of

Date:

Aujourd'hui, je travaille à /
Today I was working on:

#	Type: T=Tél. / Tel. P=En personne / In person E=Courriel / Email	Début / Start Time	Fin / End Time	Temps d'interruption total (min.) / Total Interruption Time (mins)	Qui (y compris soi-même) / Who Interrupted (include self)	Raison de l'interruption (Pourquoi) / Reason for Interruption (Why)
1						
2						

Huddle Meetings

- 10 minutes daily
- Progress on process improvement.
- All status updates.
- Interruption-free times.
- Moral. Encouragement.
- TRACK BOTTLENECK.

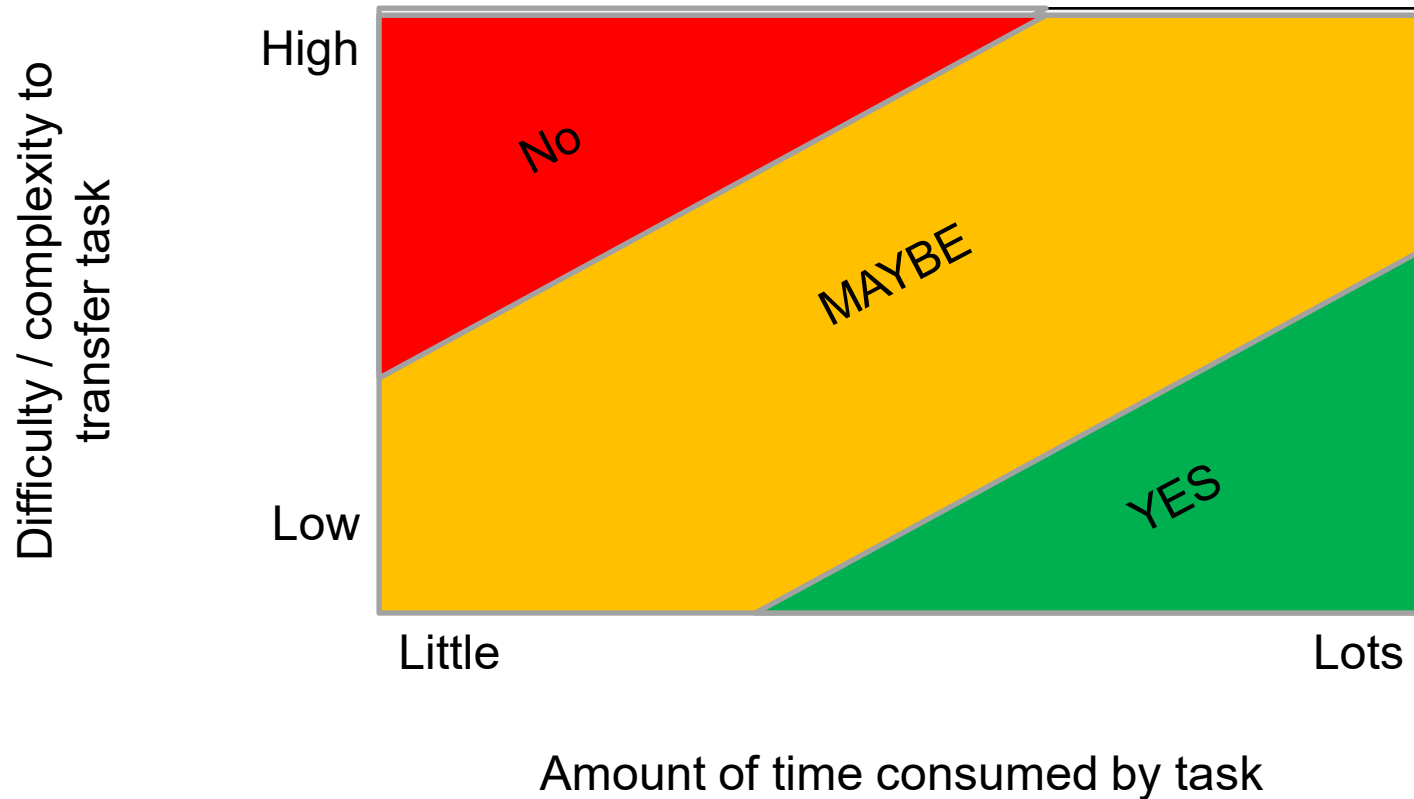


Performance Measure: the 10 minutes spent in the meeting adds more value to each participant than what they would have been doing with that same time, otherwise.

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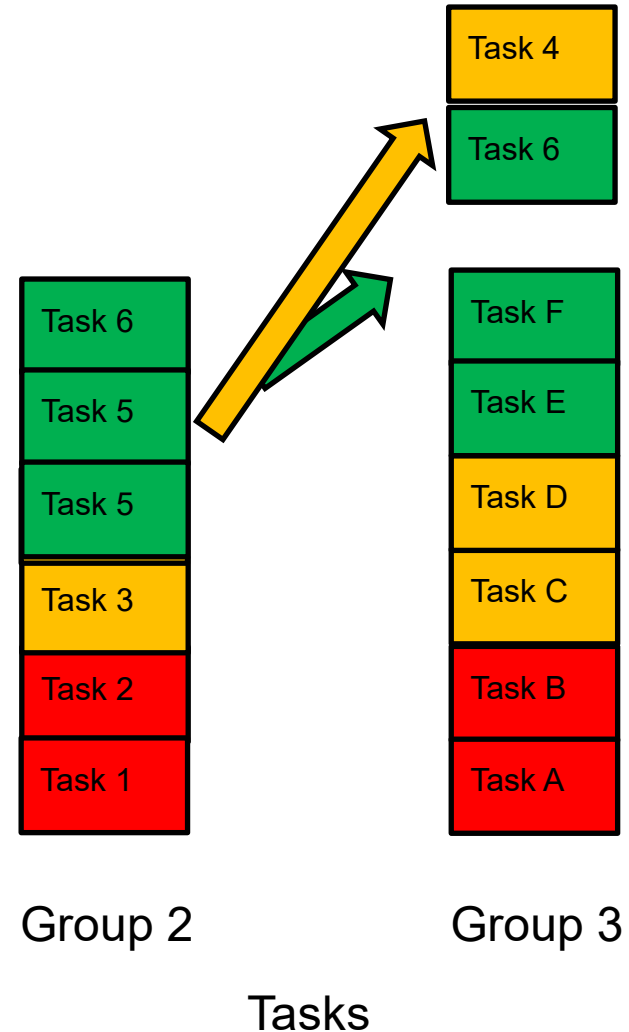
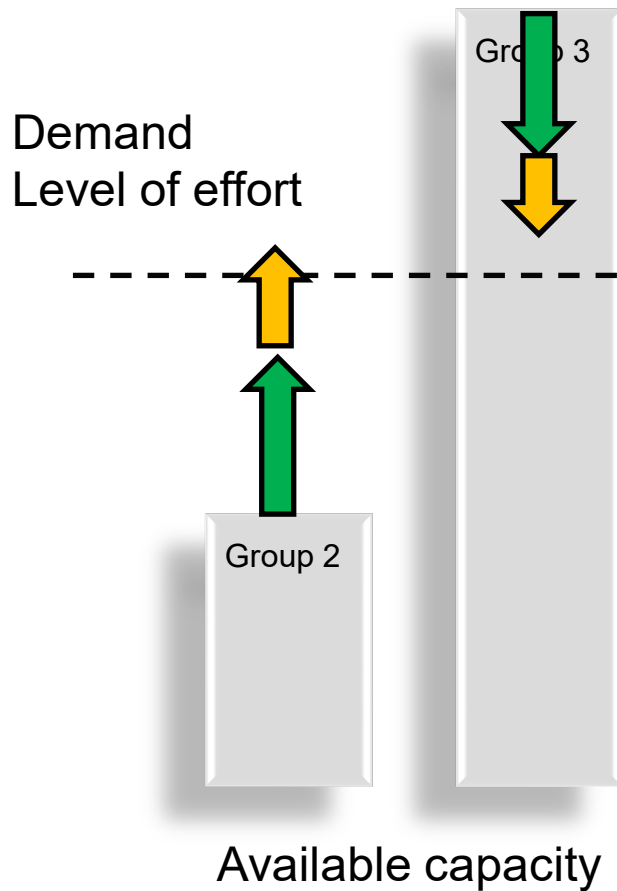
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Re-assign Tasks Away from Bottleneck.



Re-assign Tasks Away from Bottleneck

Transferable tasks or lower value tasks like data entry to other less busy people



Re-assign Tasks Away From Bottleneck.

- Eliminate or transfer lower value tasks like data entry or filing to other less busy people.
- Consider transferring complex tasks to senior staff or management. Do not waste time on a tasks you are not qualified to do.

*** Ensure “hand-offs” are clear and do not create more work. No back and forth. This is critical.***

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Four things you can do next

1. **Increase focused, uninterrupted time (kanban)** to reduce the effects of switch-tasking
2. **Experiment with eliminating Failure Demand** so that your clients get it right the first time through.
3. **Identify your “true” backlog and create an improvement strategy to eliminate it** to create a more efficient process that addresses the root causes of the backlog

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