

PROBLEMS THAT ARISE WHEN FOCUSING ON PREDICTABILITY INSTEAD OF VARIABILITY

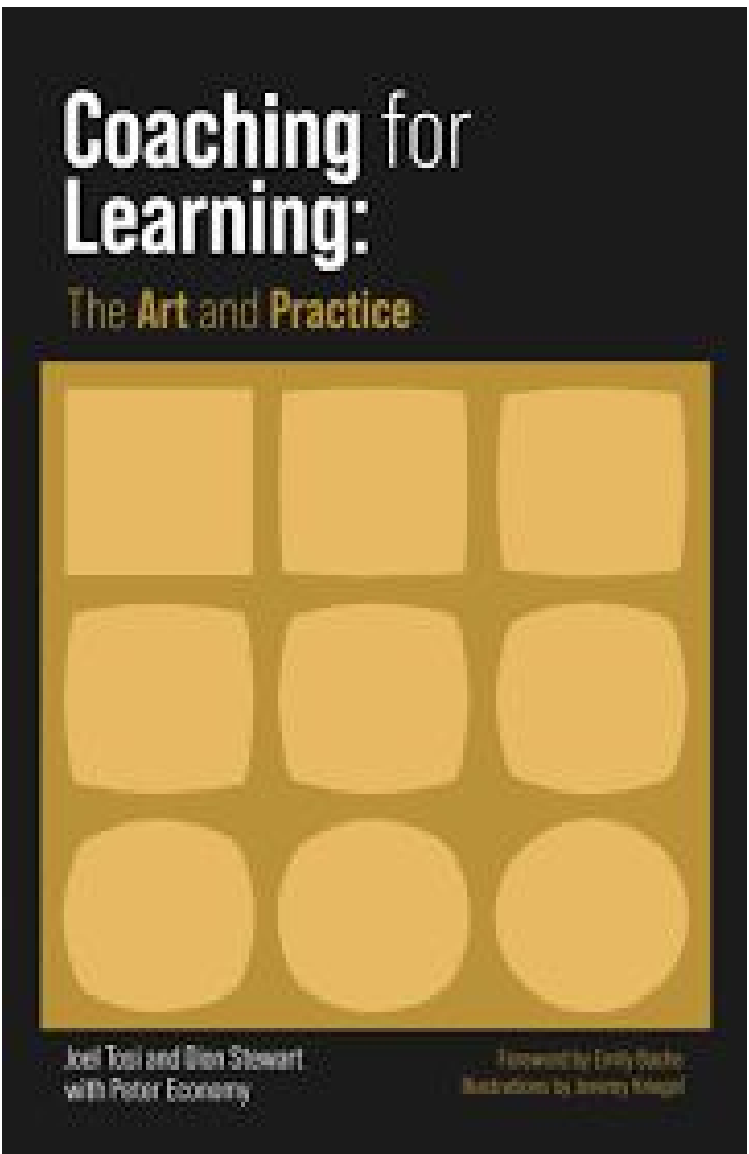


Joel Tosi

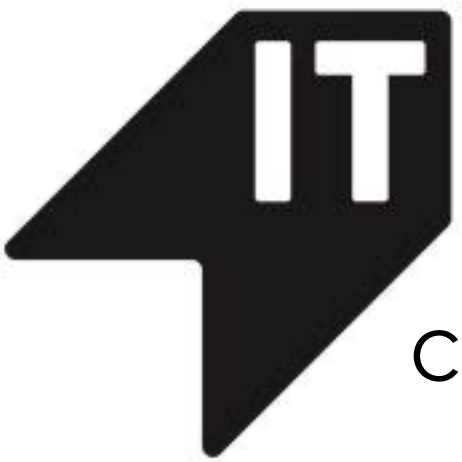
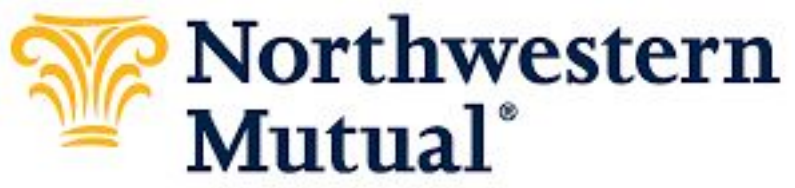
SLIDES—<https://www.dojoandco.com/speaking>

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ABOUT ME

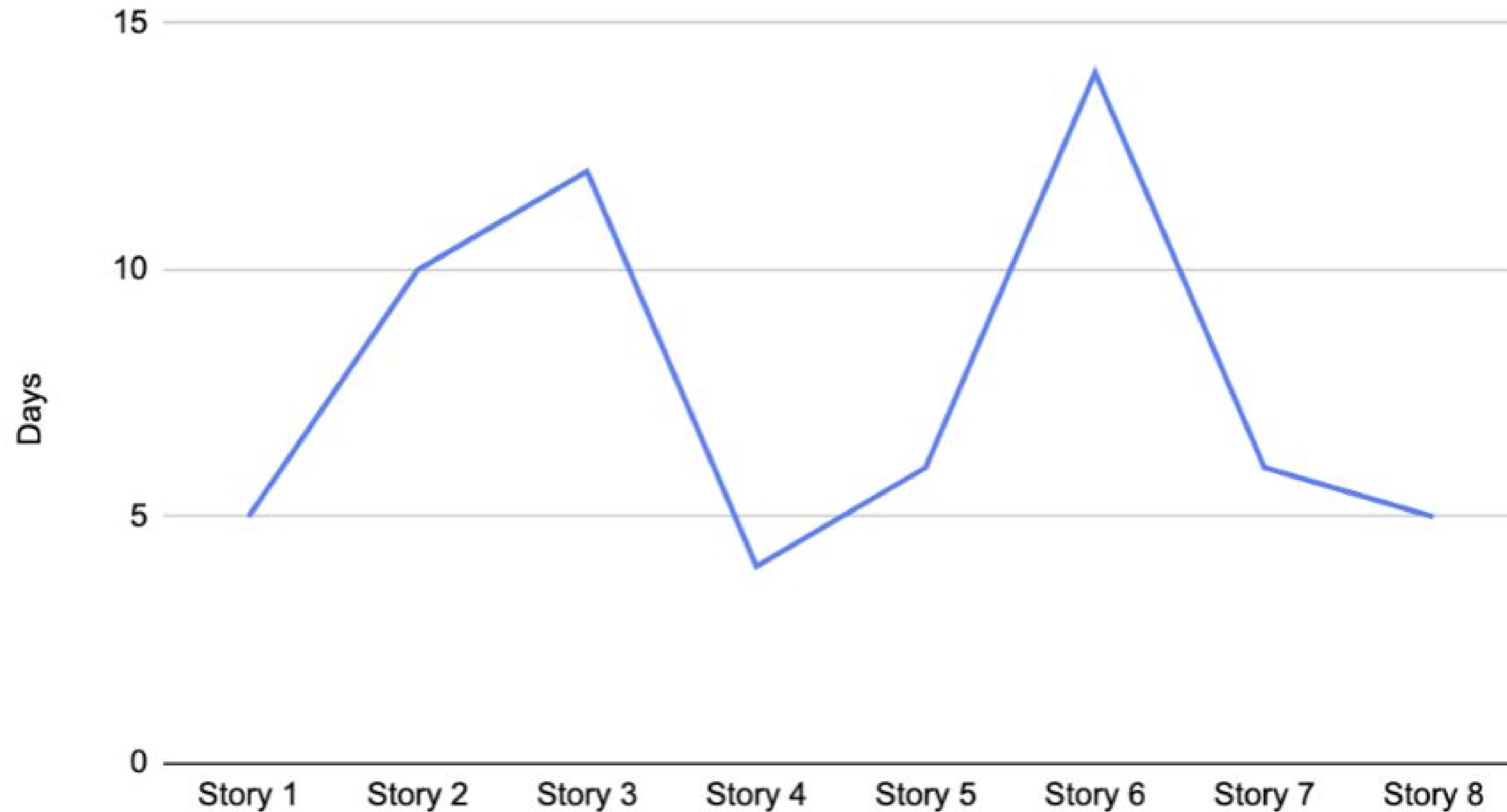


Coming Fall 2026



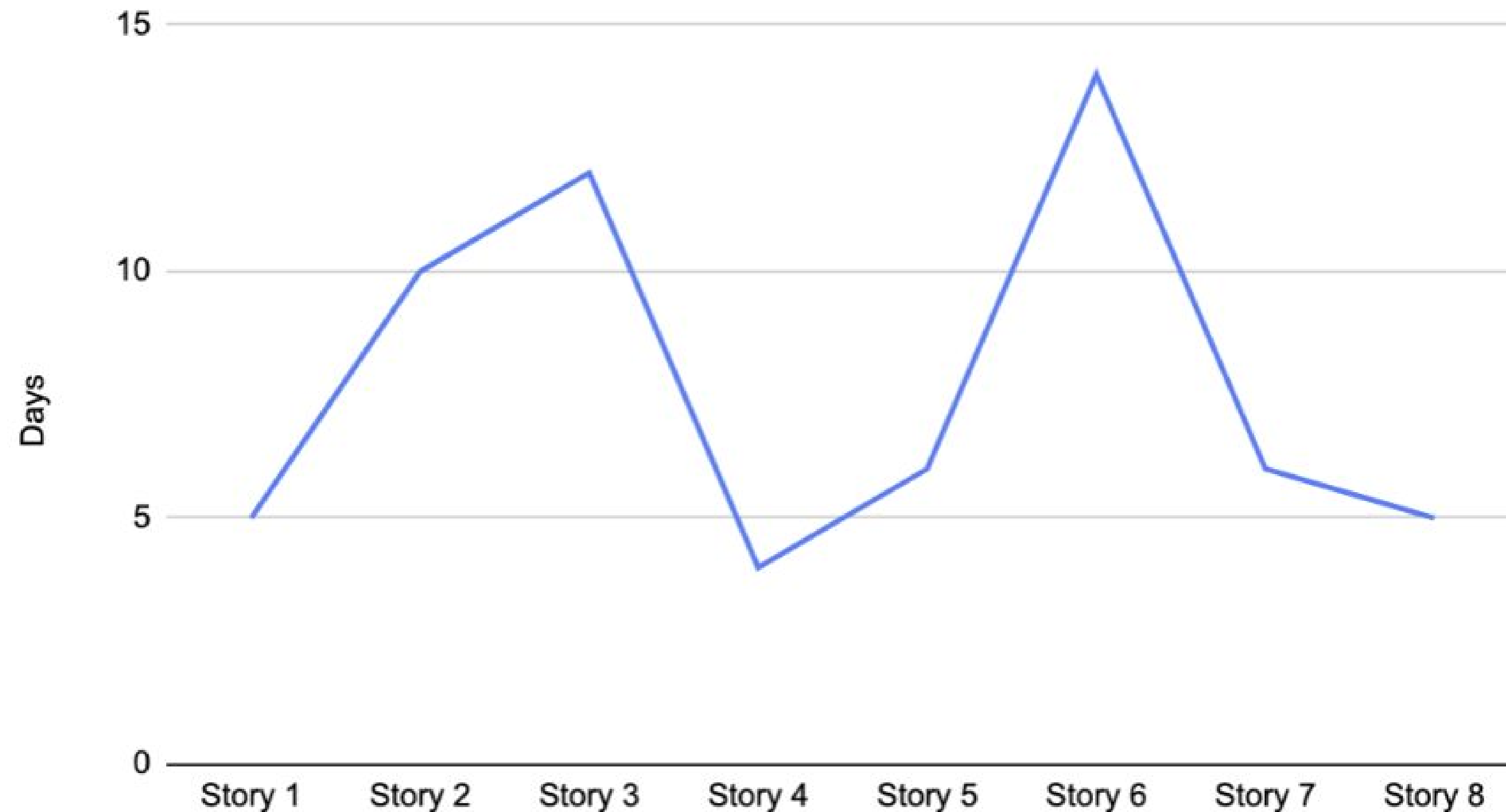
IMAGINE THIS TEAM

Cycle Time



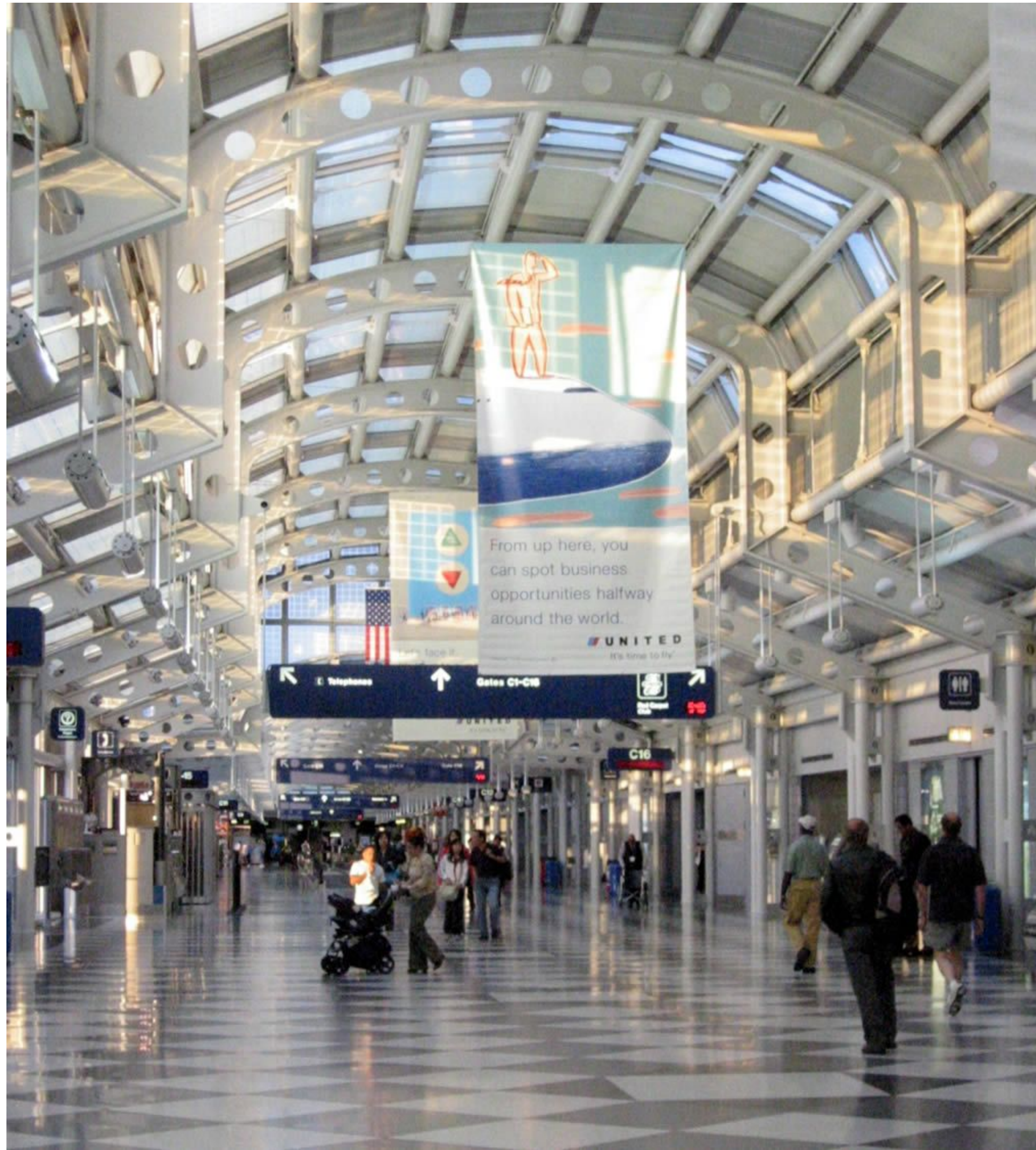
WHAT DO YOU THINK?

Cycle Time



- A) Next story takes 8
- B) Next story takes 15
- C) Next story takes 20
- D) Next 3 stories take 1

YOUR TAKEAWAYS



See Variability

Help People to Stop Hiding Variability

Work the System

Hint - People may not like this

WHEN WILL IT BE DONE?



Velocity is 5 points / 2 week sprint

Backlog size is 40 points

When will it be done?

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**UNDERSTANDING VARIATION IS THE KEY
TO SUCCESS IN QUALITY AND BUSINESS**
- W. Edwards Deming

PROCESS BEHAVIOR CHARTS

Named after Walter Shewart (also called Shewart charts), these are a statistical tool used to distinguish between variation in a measure due to common causes and variation due to special causes



PROCESS BEHAVIOR CHART

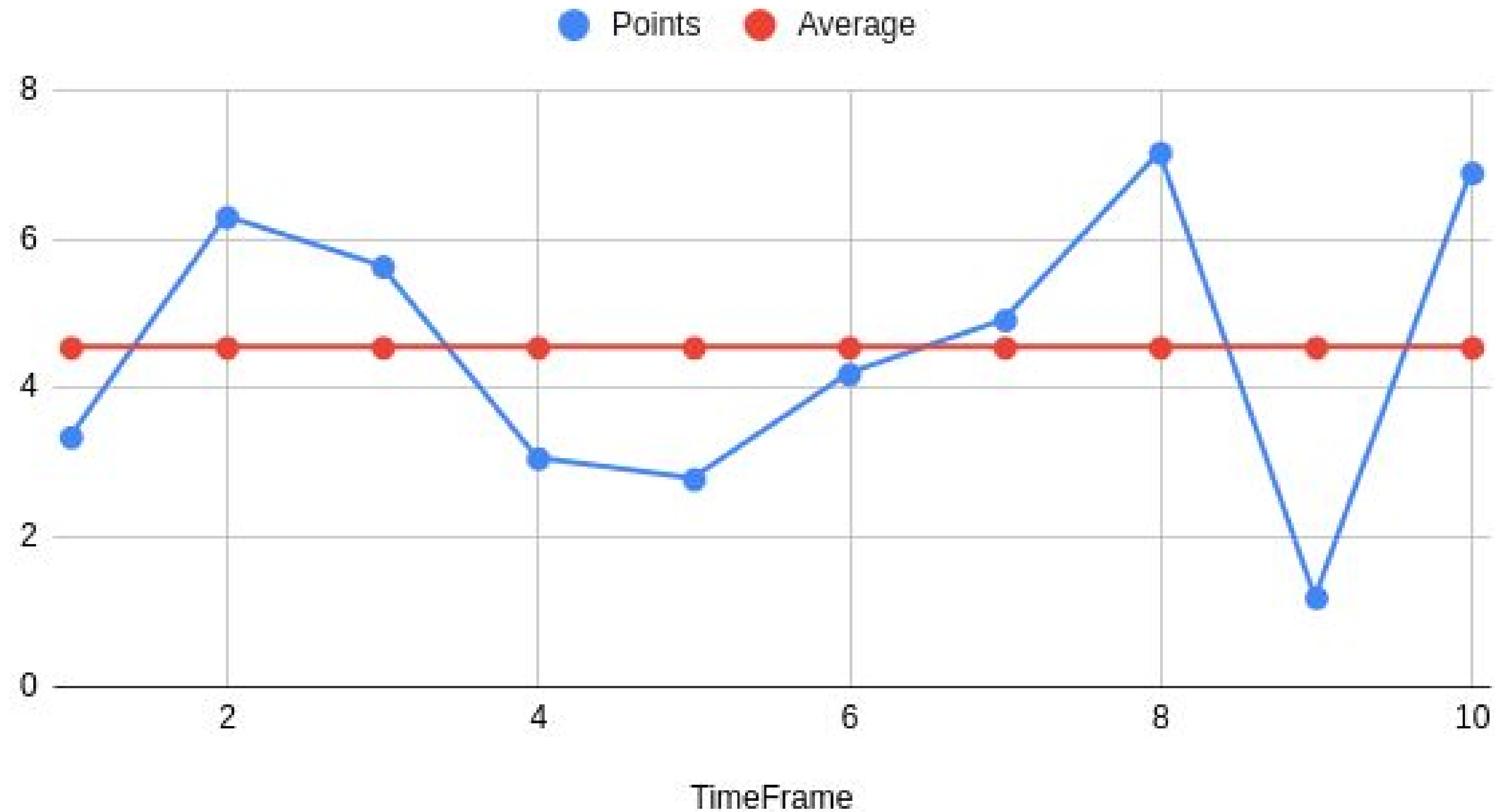
The way you deliver value is a system

If you do nothing, a stable system will continue to deliver within a given range

YOUR GOAL – Understand Variability; Don't Hide It

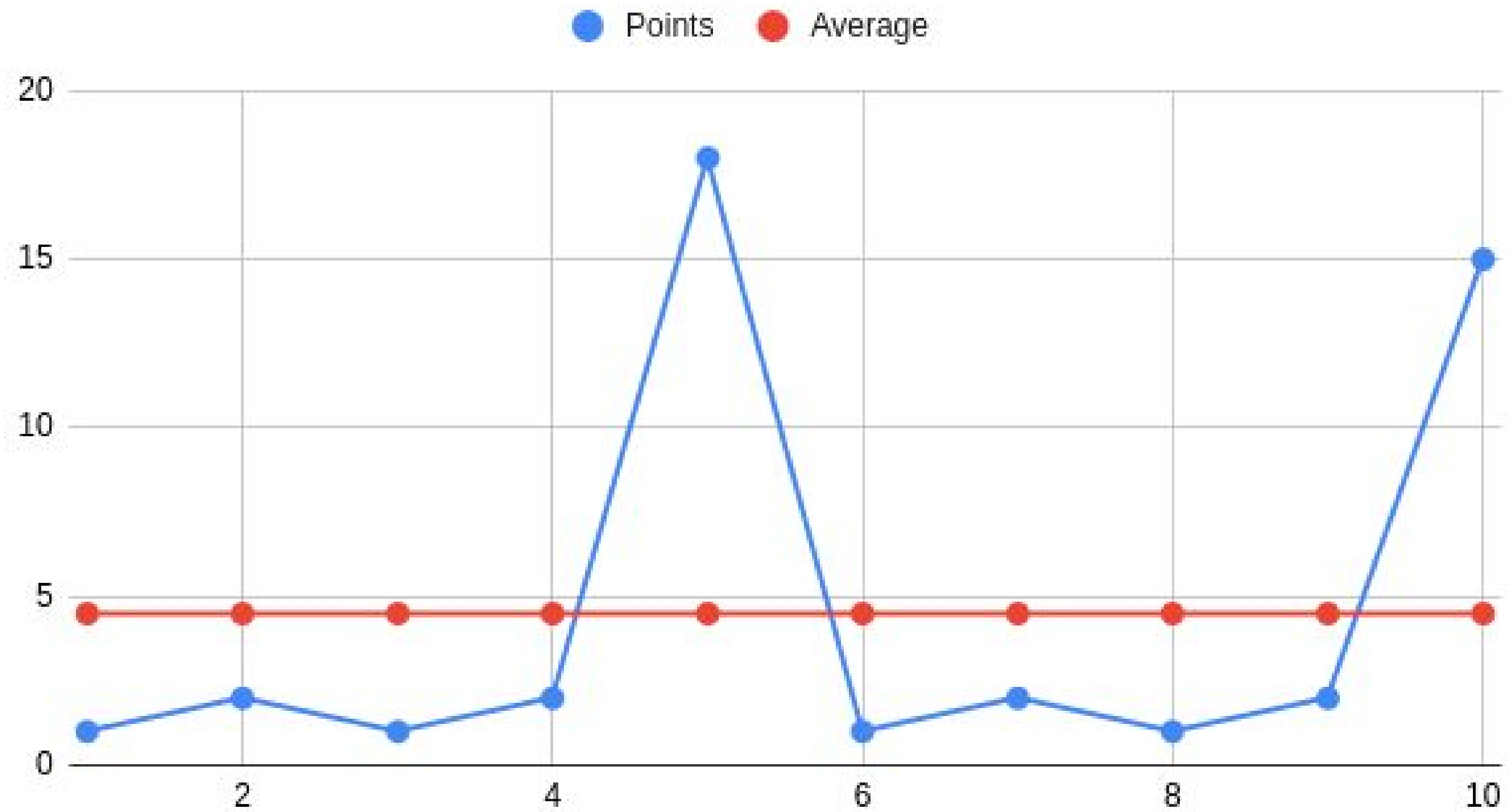
WHEN WILL IT BE DONE?

Points and Average



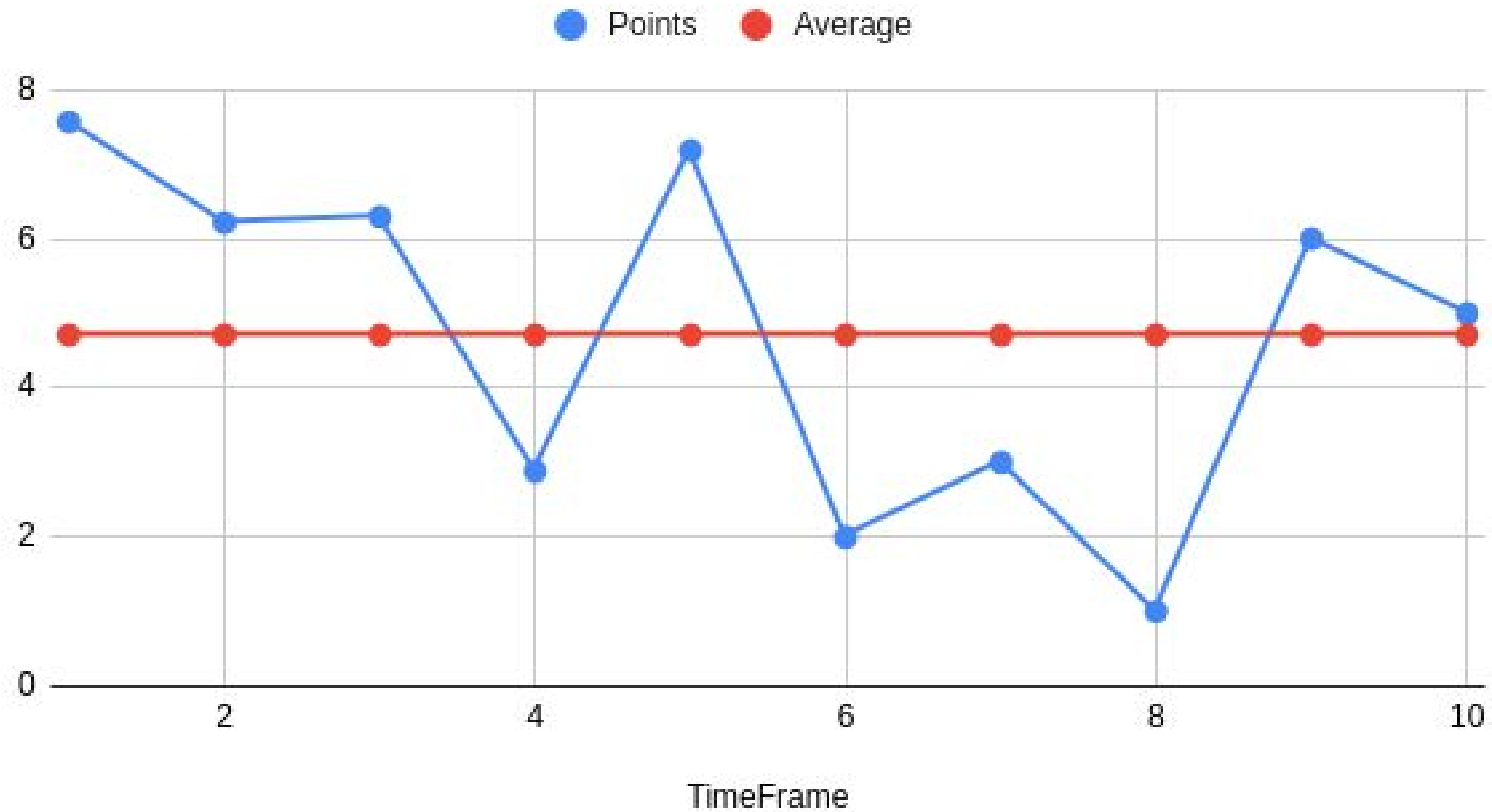
SAME AVERAGE

Points and Average



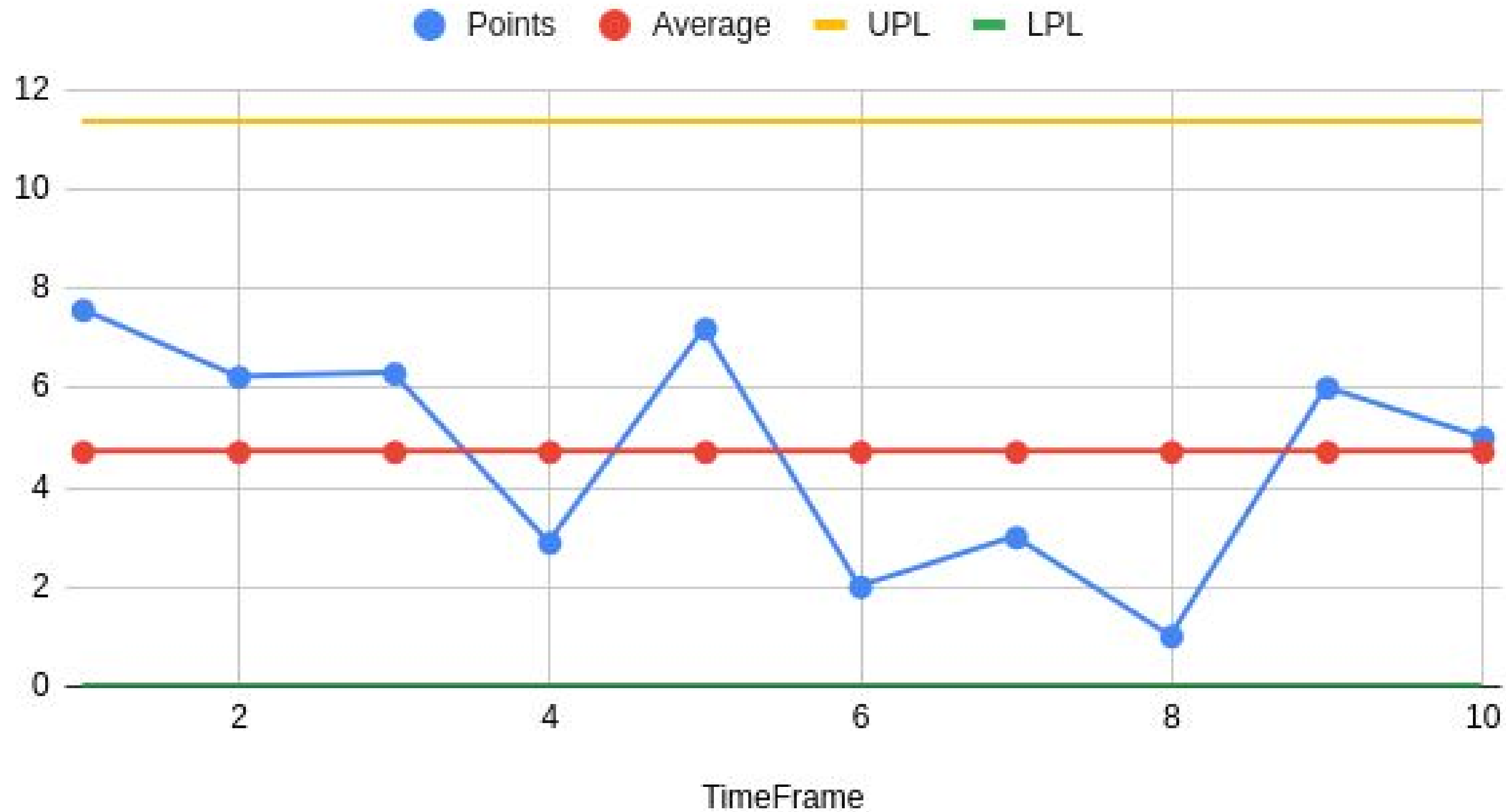
SAME AVERAGE

Points and Average



WHEN WILL IT BE DONE?

Points and Average



STRETCH GOALS ARE A LIE

If a system is not stable, trying to predict when something will be done is silly at best.

If a system is stable, planning beyond what your system can deliver is silly (without intervention in the system).

IF YOU HAVE NO IDEA HOW MUCH VARIATION
YOU HAVE, THEN FOCUSING ON EXACTNESS
AND PREDICTABILITY IS...SILLY

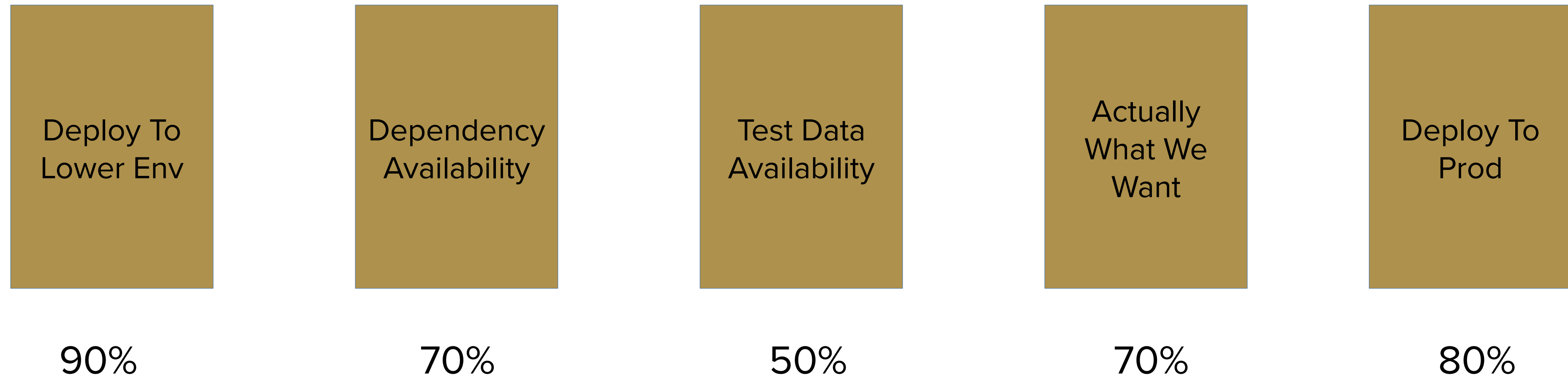
STARTING TO SEE VARIABILITY

ONE POSSIBLE SCENARIO

ACME is building their newest social platform and are trying to figure out when it will launch. Looking into their process, the following is observed:

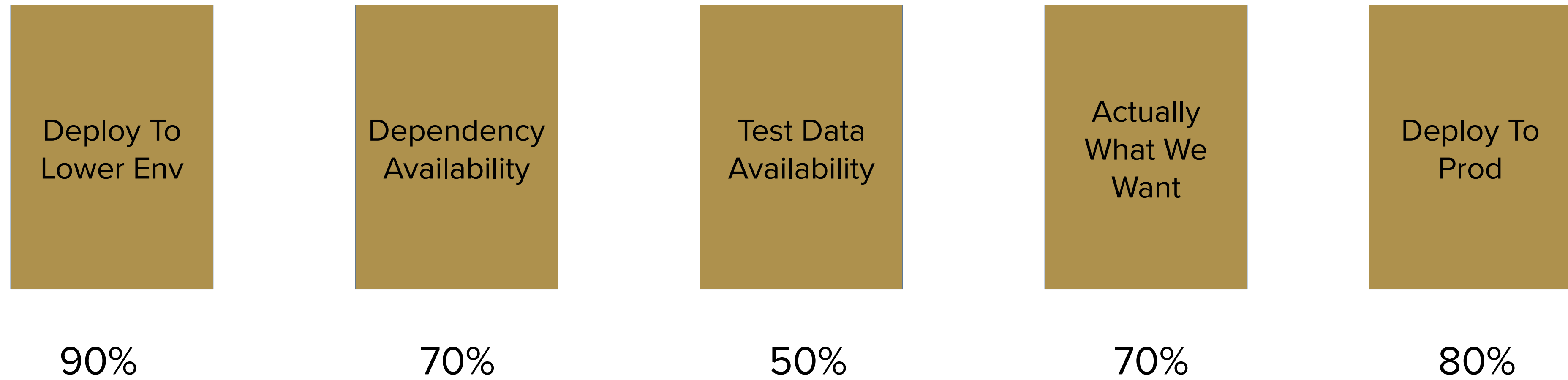
- When deploying to lower env, it deploys successfully 90% of the time
- When testing starts, dependencies are available 70% of the time
- To test, data needs to be recreated 50% of the time
- New features meet their intention 70% of the time
- Deploying to prod can only happen when there aren't conflicts. First time deploys are 80% of the time.

WHEN WILL A FEATURE SHIP?



OR HOW OFTEN WILL A FEATURE MAKE IT THROUGH FIRST TIME?

MORE THAN 80% OF THE WORK IS REWORK

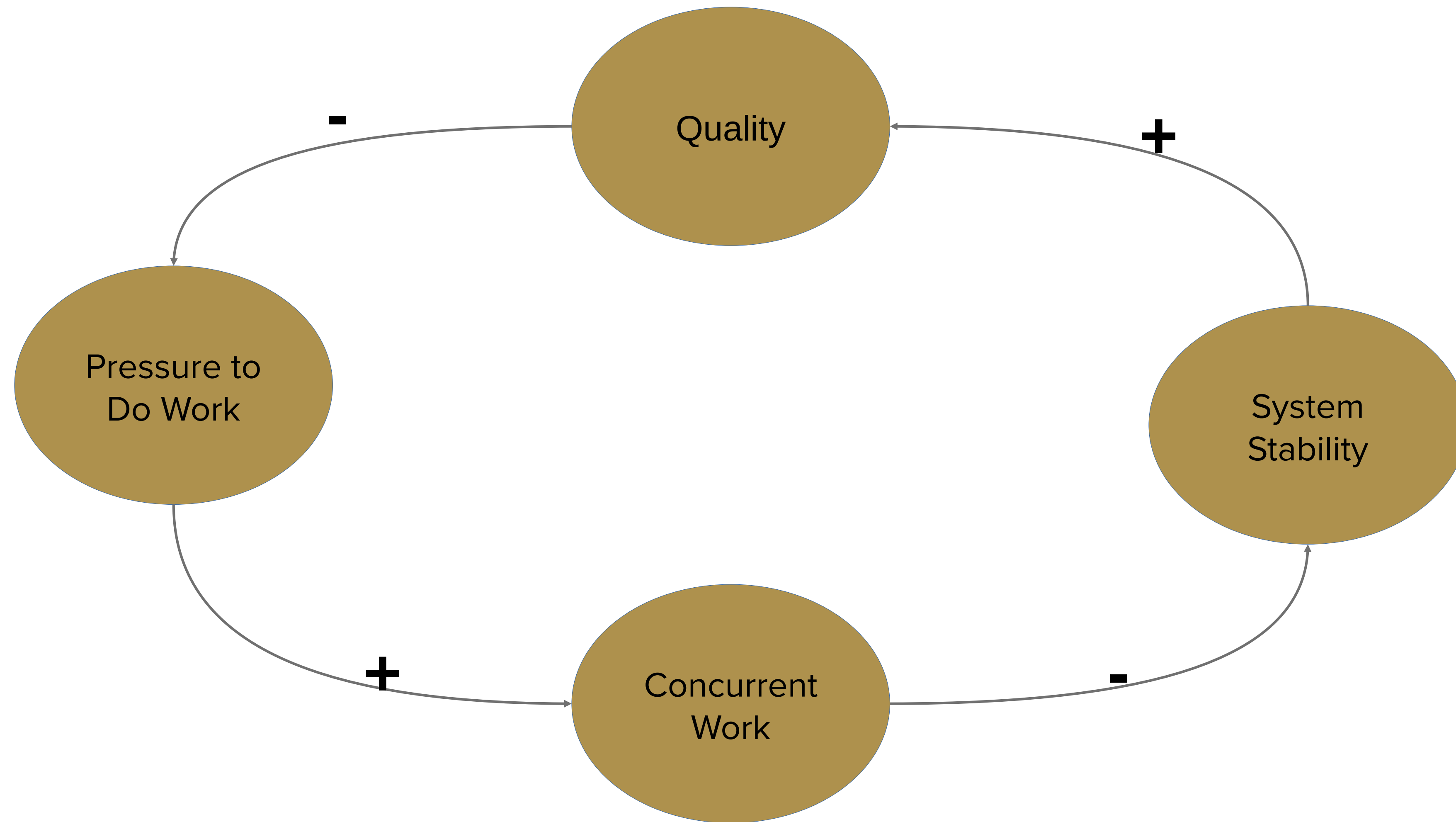


$$.9 * .7 * .5 * .7 * .8 =$$

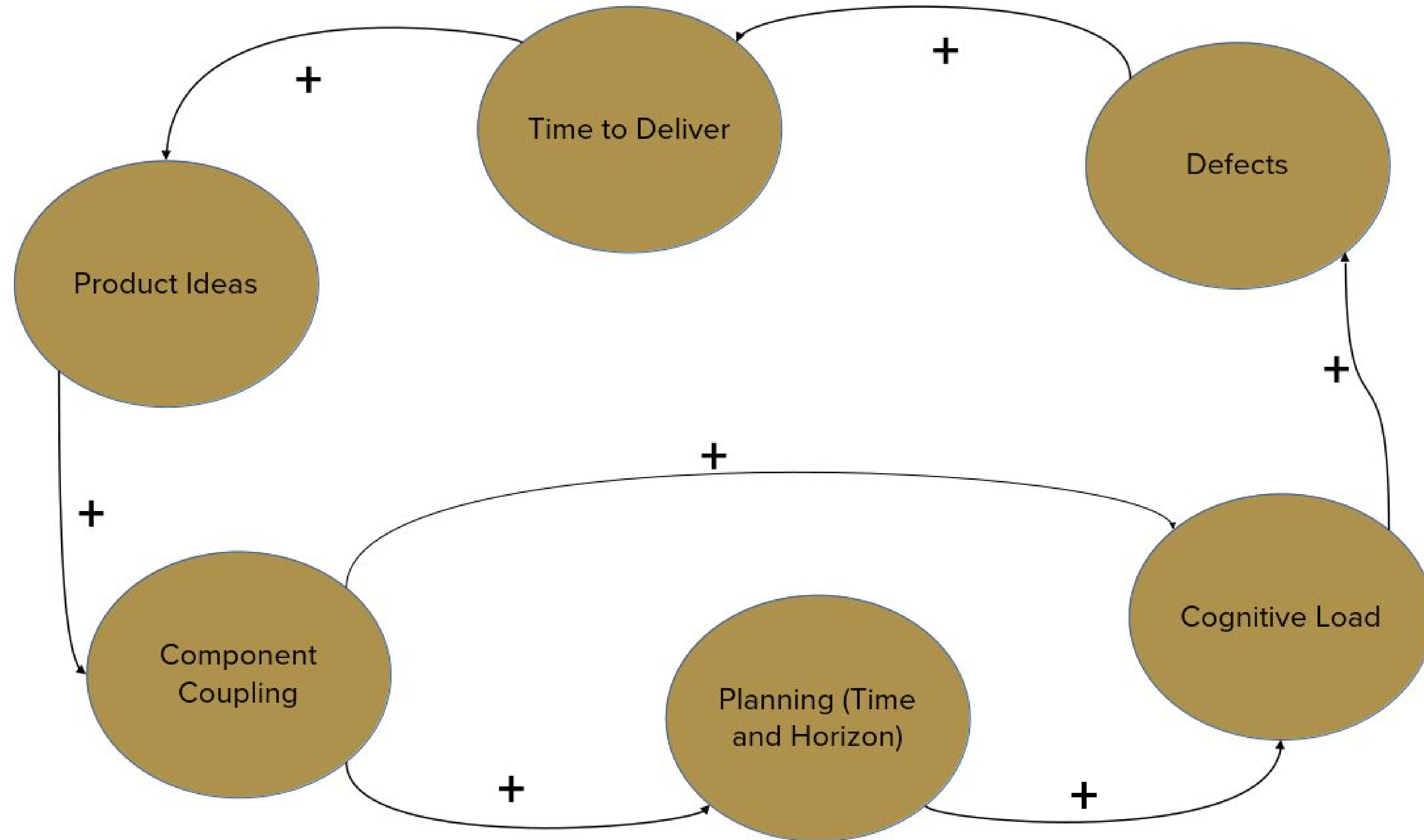
17.64% of the time work does not require rework

DOES NOT EVEN INCLUDE AFTER CUSTOMERS TOUCH IT

A VICIOUS CYCLE – AND COSTS GO UP



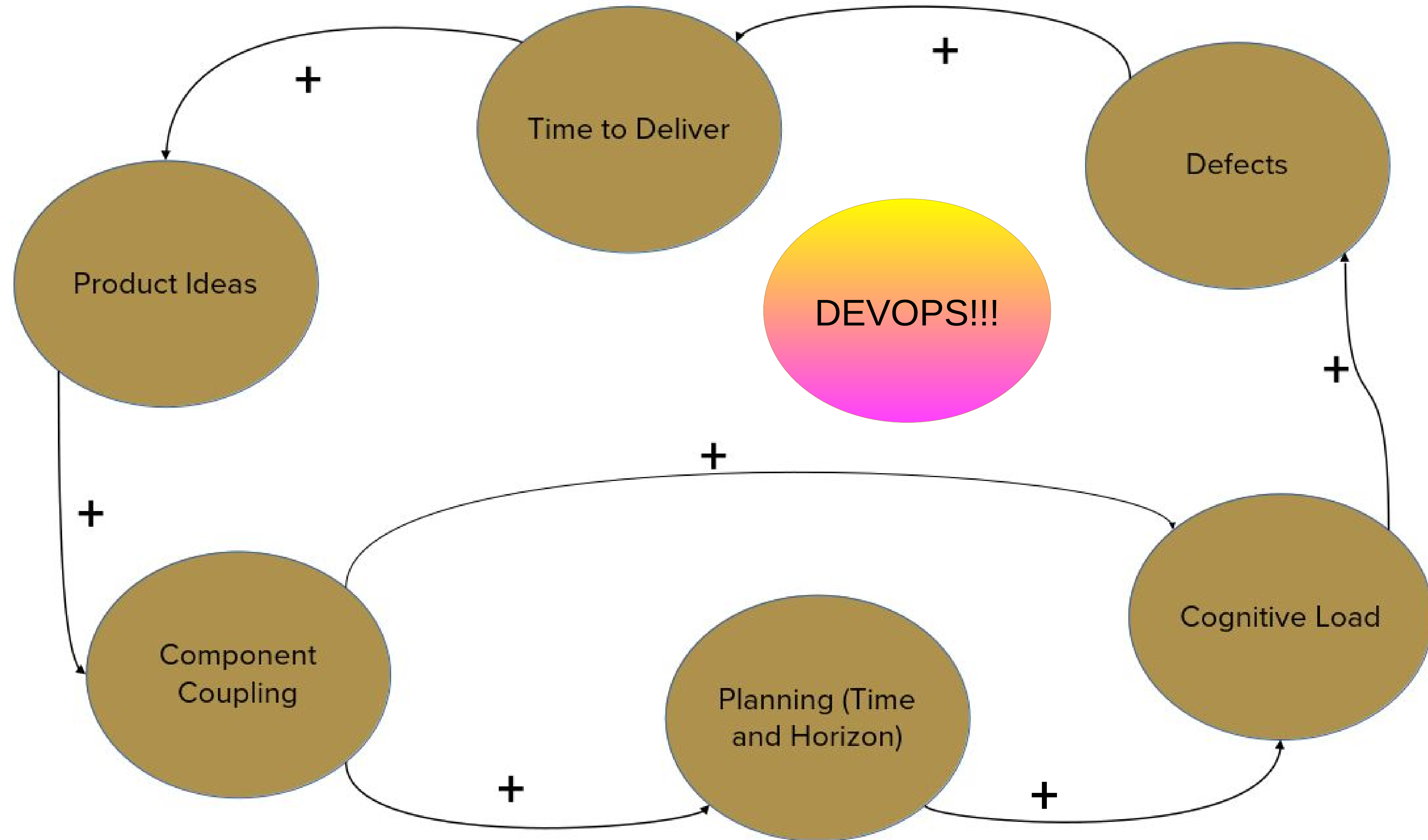
AND IT GETS WORSE



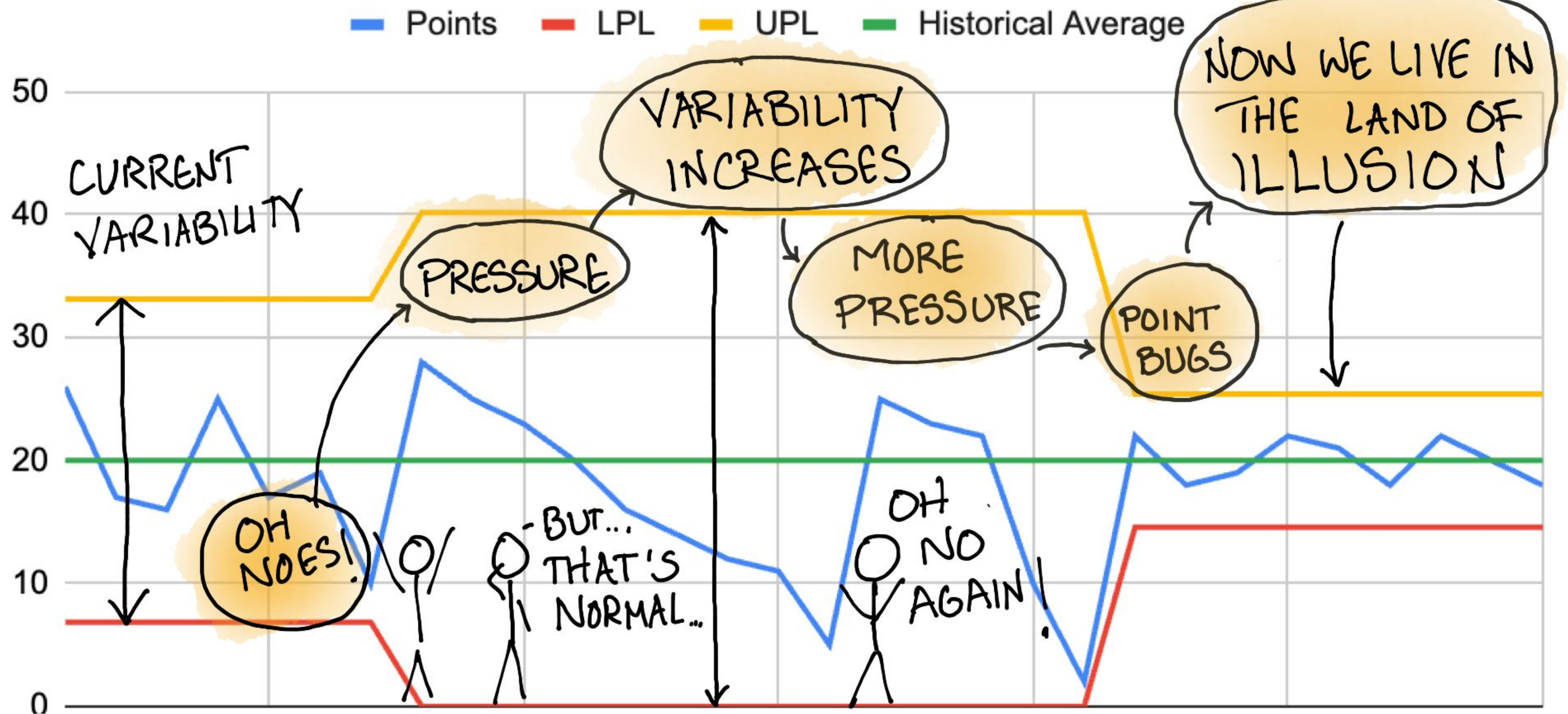
WHEN WE DON'T SEE THE SYSTEM,
WE ACT WITH BEST INTENTIONS

IN THE WRONG WAYS

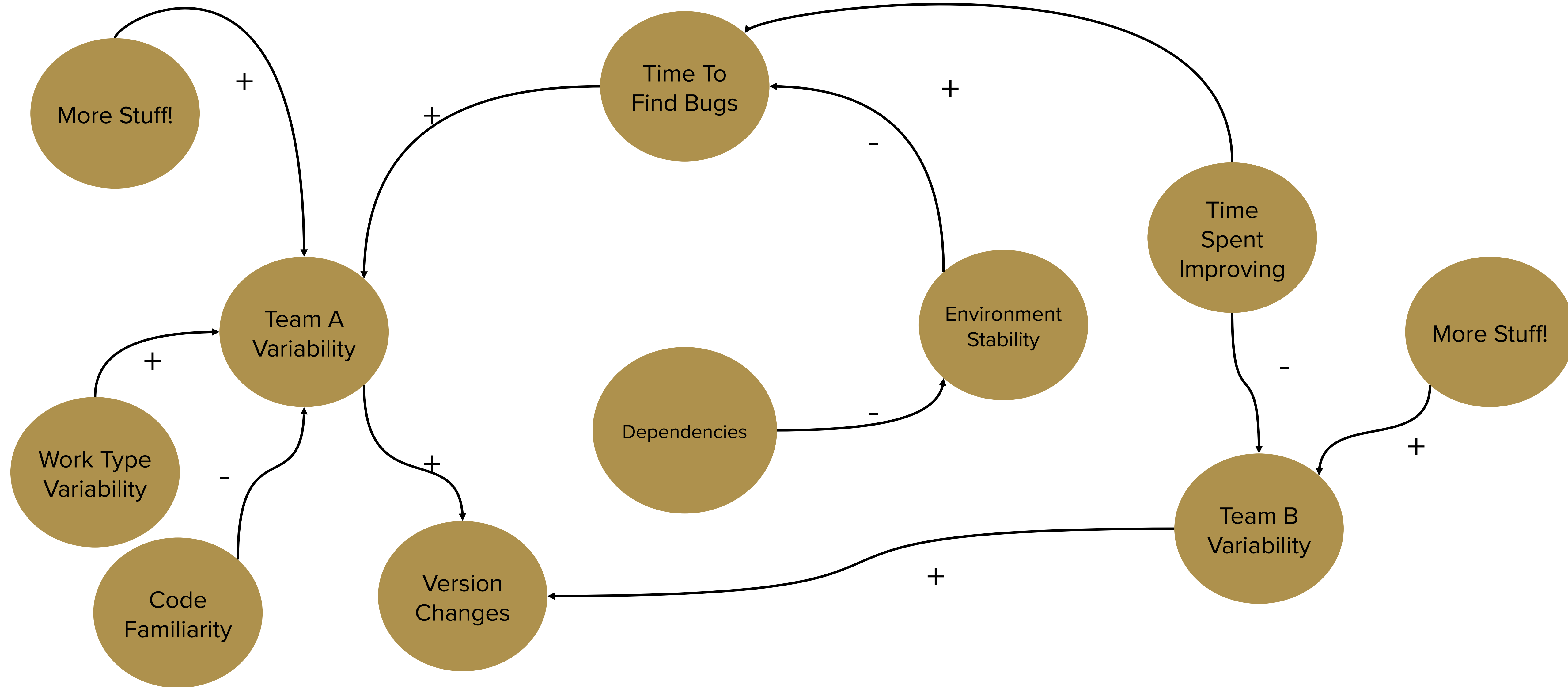
A VICIOUS CYCLE



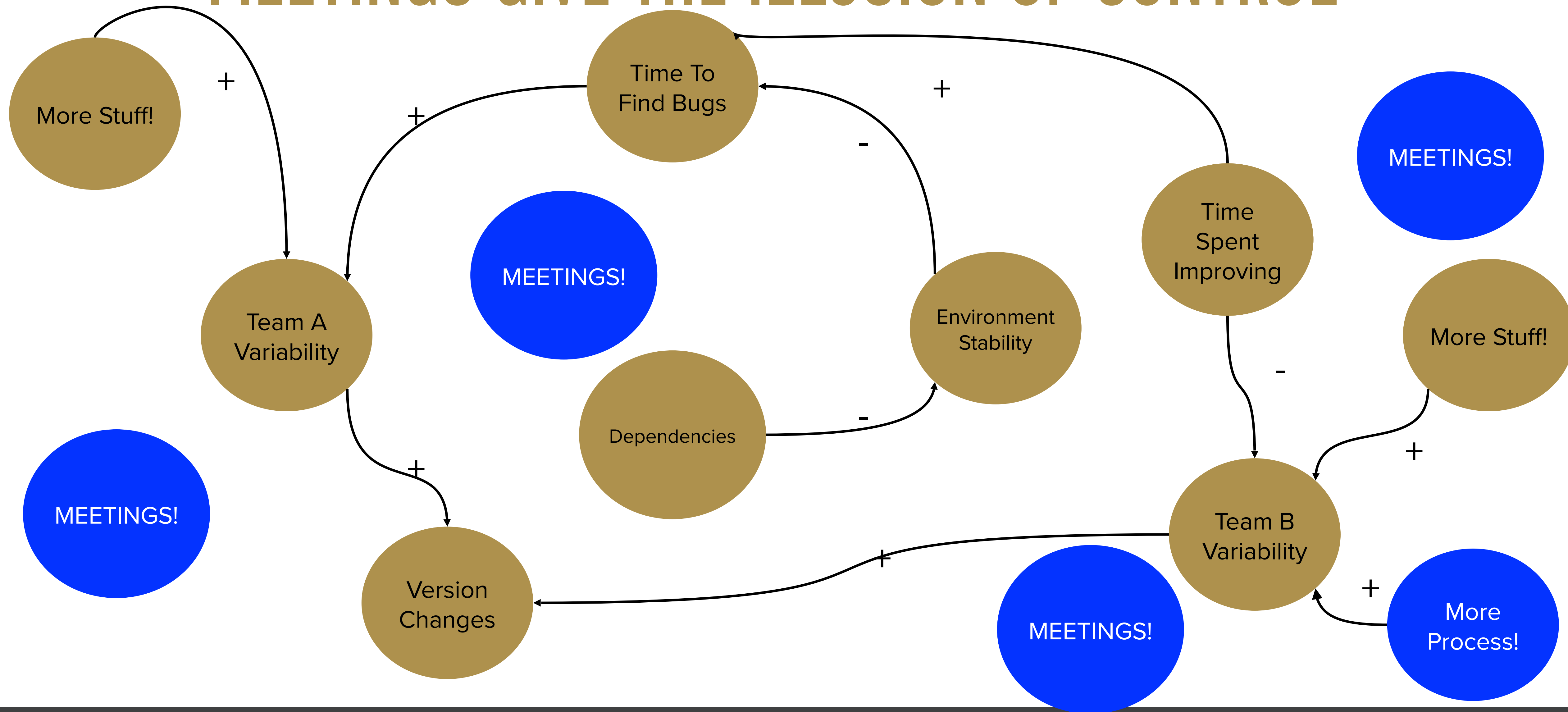
Team Velocity



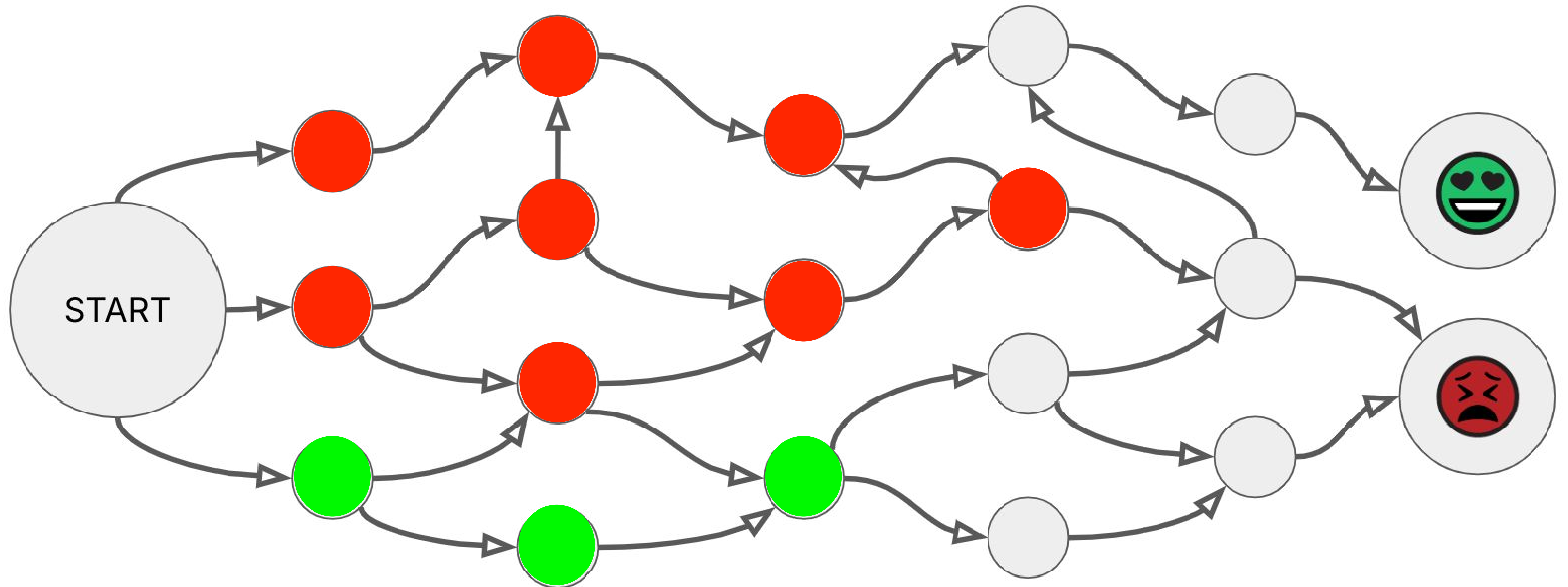
REALITY IS INTERCONNECTED AND NON-LINEAR



MEETINGS GIVE THE ILLUSION OF CONTROL



DECISIONS CAN LOP OFF OPTIONS



Credit - Elisabeth Hendrickson

OTHER ILLUSIONS



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Stories

Backlogs

Branches

Tests

Scheduling

Priorities

Not Measuring Impacts / Wrong

Measures

BE CAREFUL WITH PERCEIVED OUTLIERS



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Occasionally what we perceive as an outlier is just us looking at the wrong level of the system

Major releases

Security

Cost of delivery

SEE YOUR STORY

CHANGE YOUR STORY

SO WHAT DO WE DO?

- 1) Stop hiding variability
- 2) Start measuring variability
- 3) You all know better than me what to do next

RIGHT NOW



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You can get with your teams and model together

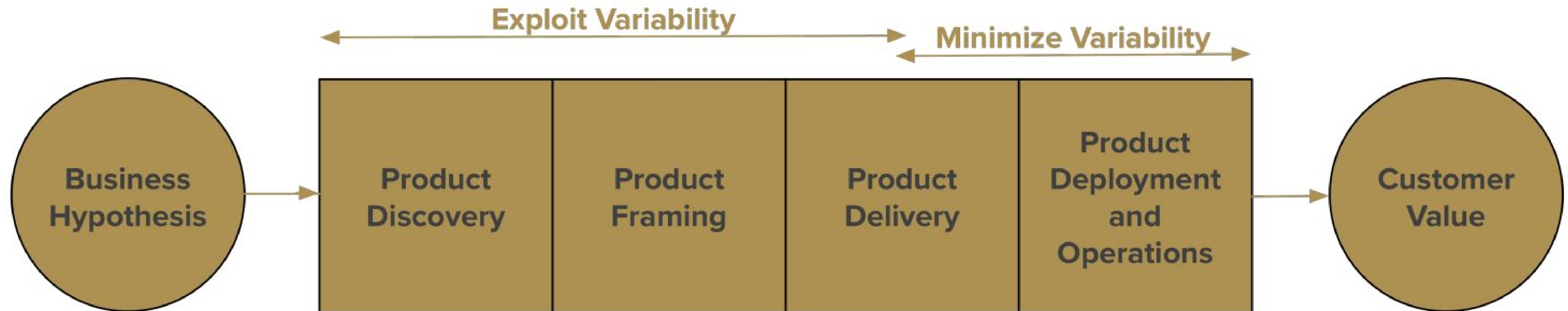
Start with one observable impact or experience

What is influencing it? And what items are influencing that?

Leave yourself with options

THE GOAL IS NOT ZERO VARIABILITY

HOW WE LOOK AT THE VALUE STREAM



STUDY & UNDERSTAND YOUR SYSTEM

**DON'T SEEK PREDICTABILITY IN HIGH
VARIABILITY**

RECOMMENDED READING

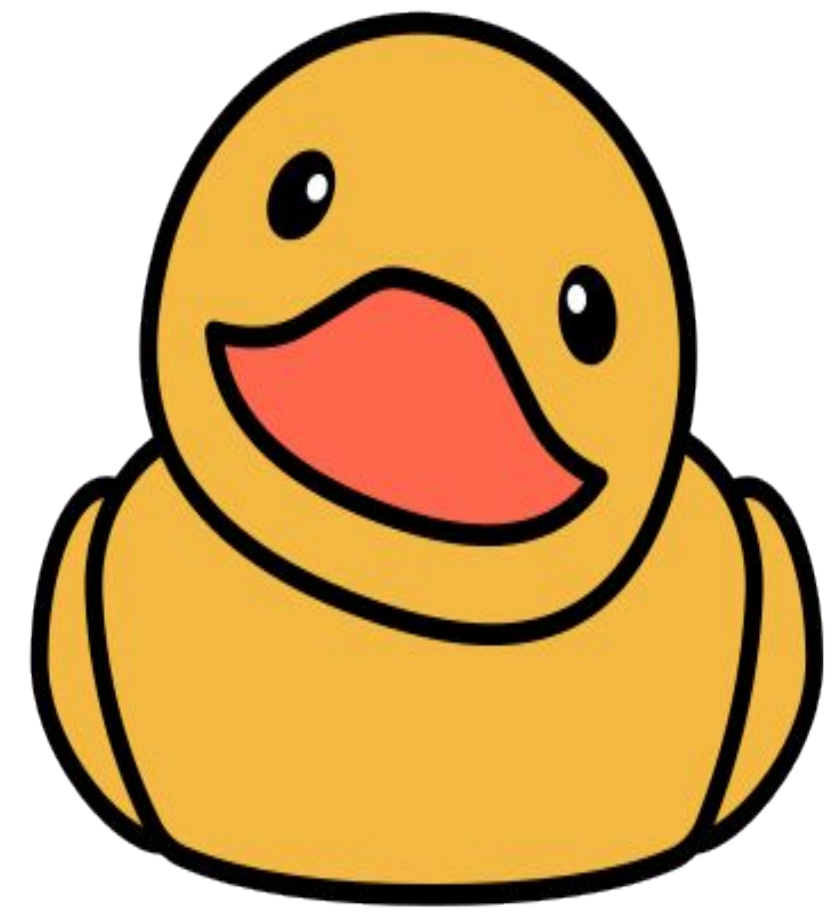
Measures of Success: React Less, Lead Better, Improve More – Mark Graban

Understanding Variation – The Key To Managing Chaos – Donald J. Wheeler

The Essential Deming: Leadership Principles From The Father Of Quality – W. Edwards Deming

Principles of Product Development Flow – Donald G. Reinertsen

SIMULATION W/ CURIUSDUCK.IO



curious duck
digital laboratory, llc



SIMULATION W/ CURIOUSDUCK.IO

Go to https://sim.curiousduck.io/users/sign_in

Sign up for an account

Login

Choose the 'It Depends' scenario

Play!

5 Minutes Together
5-10 Minutes in Small Groups
Share

WHAT QUESTIONS DO YOU HAVE?



Joel Tosi

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