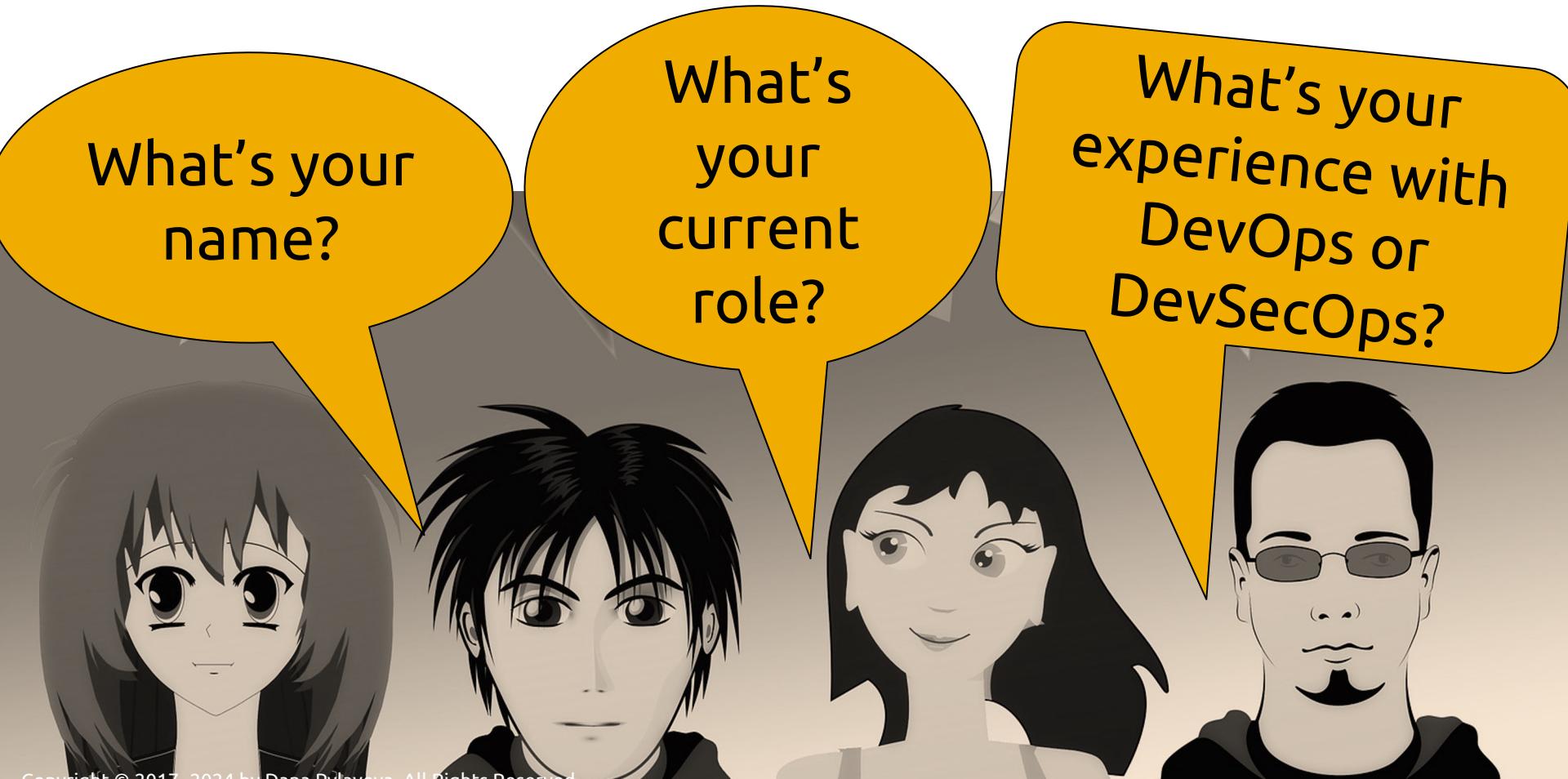


**DevSecOps Adventures.**  
**A game changing approach with**  
**LEGO, Chocolate and coaching**  
**games**

# Turn and Talk

2:00



What's your name?

What's your current role?

What's your experience with DevOps or DevSecOps?

# Development Team

Focus  
on  
Speed  
and  
Delivery



# Operations Team

Focus  
on  
Stability  
and  
Reliability



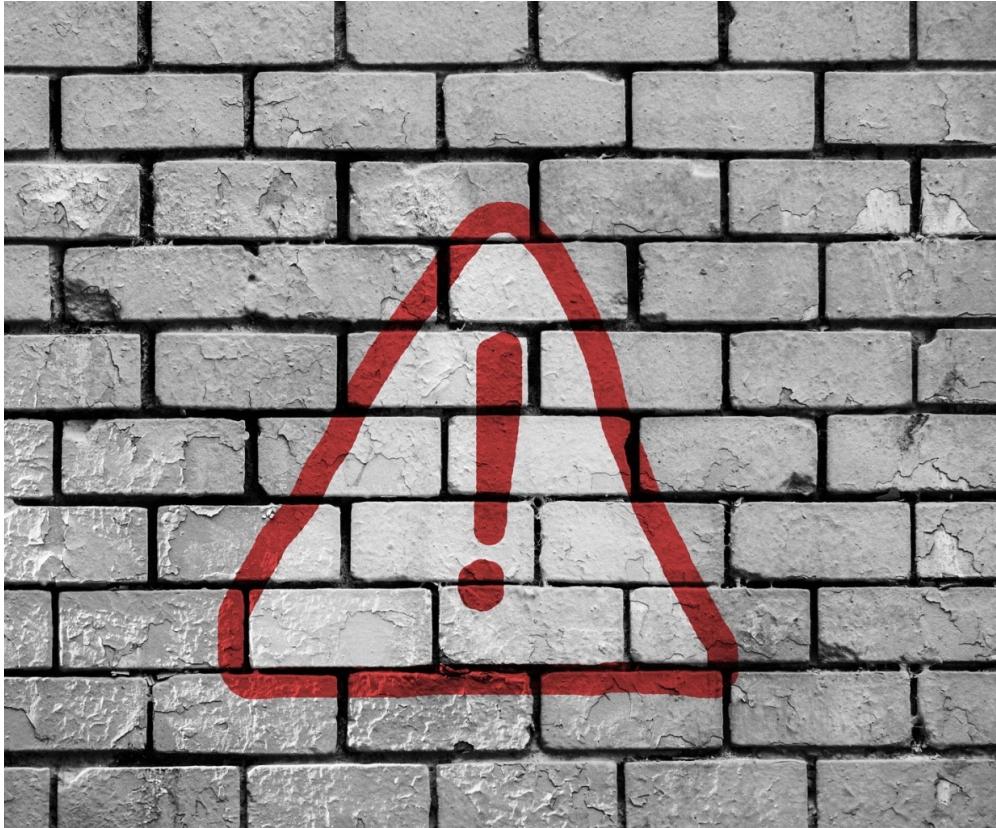
# Information Security Team

Focus  
on  
Minimizing  
Likelihood of  
Security  
Compromise



# Beware of Goals Misalignment

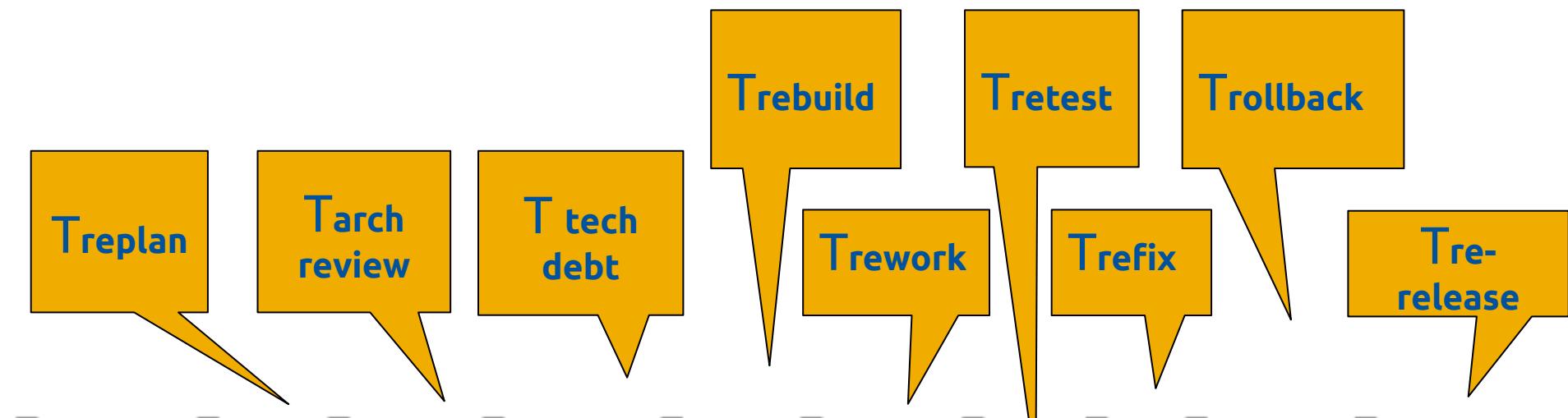
Focus  
on  
Speed  
and  
Delivery



Focus  
on  
Stability  
and  
Reliability

Focus  
On Security

# Misalignment of Goals Breeds a Low Trust Culture



% TRUST (0-1)

# DevOps Today

## DevOps Evolution level

	Low	Mid	High
Deployment Frequency	Monthly or less often	Between daily and weekly	On demand (whenever we want)
Lead Time for Changes	Between a week and 6 months	Less than a week	Less than an hour
Mean Time to Recover	Less than a week	Less than a day	Less than an hour
Change Failure Rate	Less than 15%	Less than 15%	Less than 5%

Increased Speed

Increased Stability

# Three Before Me

What's your favorite definition of DevOps?

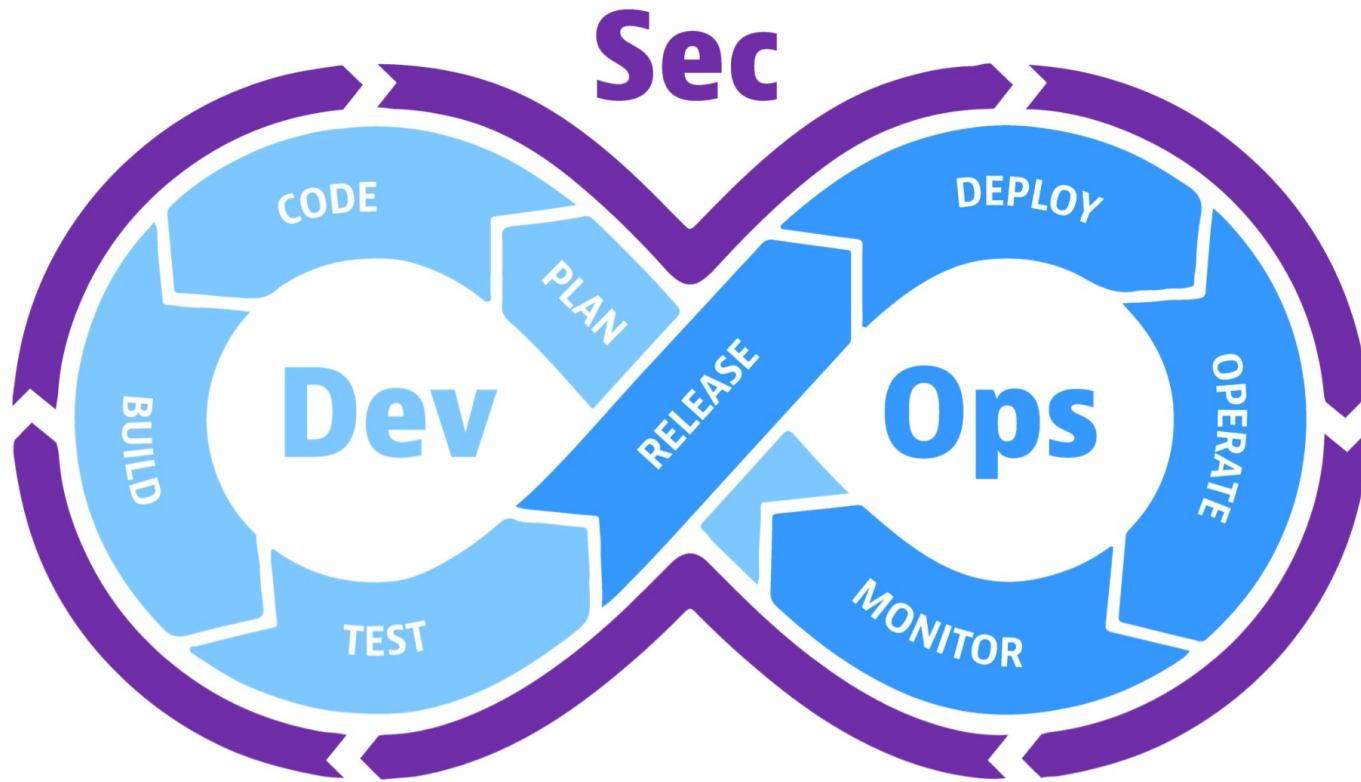


# My Favorite One

“A **mix of patterns** intended to improve collaboration between development and operations. DevOps addresses **shared goals and incentives** as well as **shared processes and tools.**”

~ Michael Hüttermann

# DevSecOps



An approach to culture, automation, and platform design that integrates security as a shared responsibility throughout the entire IT lifecycle.



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**amazon.com**

 **Spotify** **etsy** **f** **in**

# Early Unicorns

# 2023 – No Longer For Unicorns Only:



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amazon.com



NORDSTROM



- Macy's
- GE Capital
- Disney
- IBM
- Microsoft
- US Department of Homeland Security
- Barclays Capital
- Capital One
- Walmart
- 1-800-Flowers...

# DevOps Transformation RPG



# DevOps Transformation Game Plan

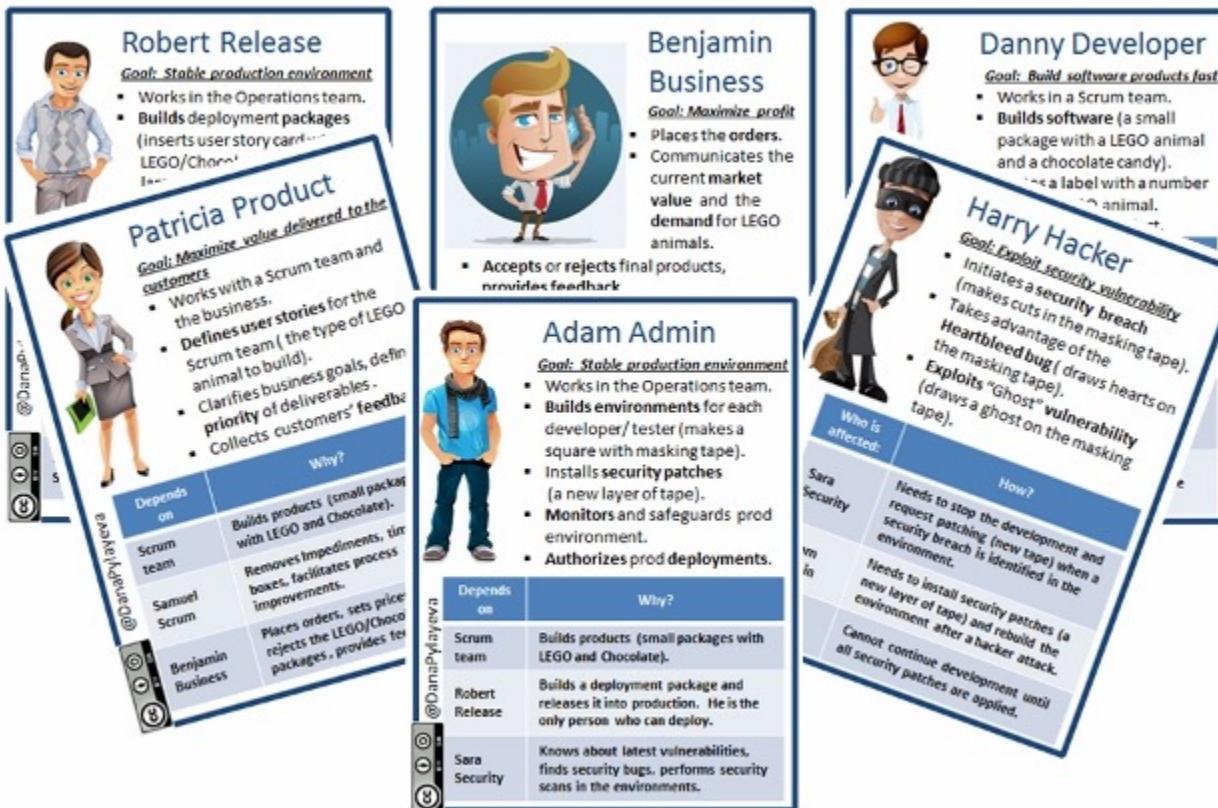


**Sprint 1: Feel the pain: Cyclical  
Value Delivery with Scrum.**

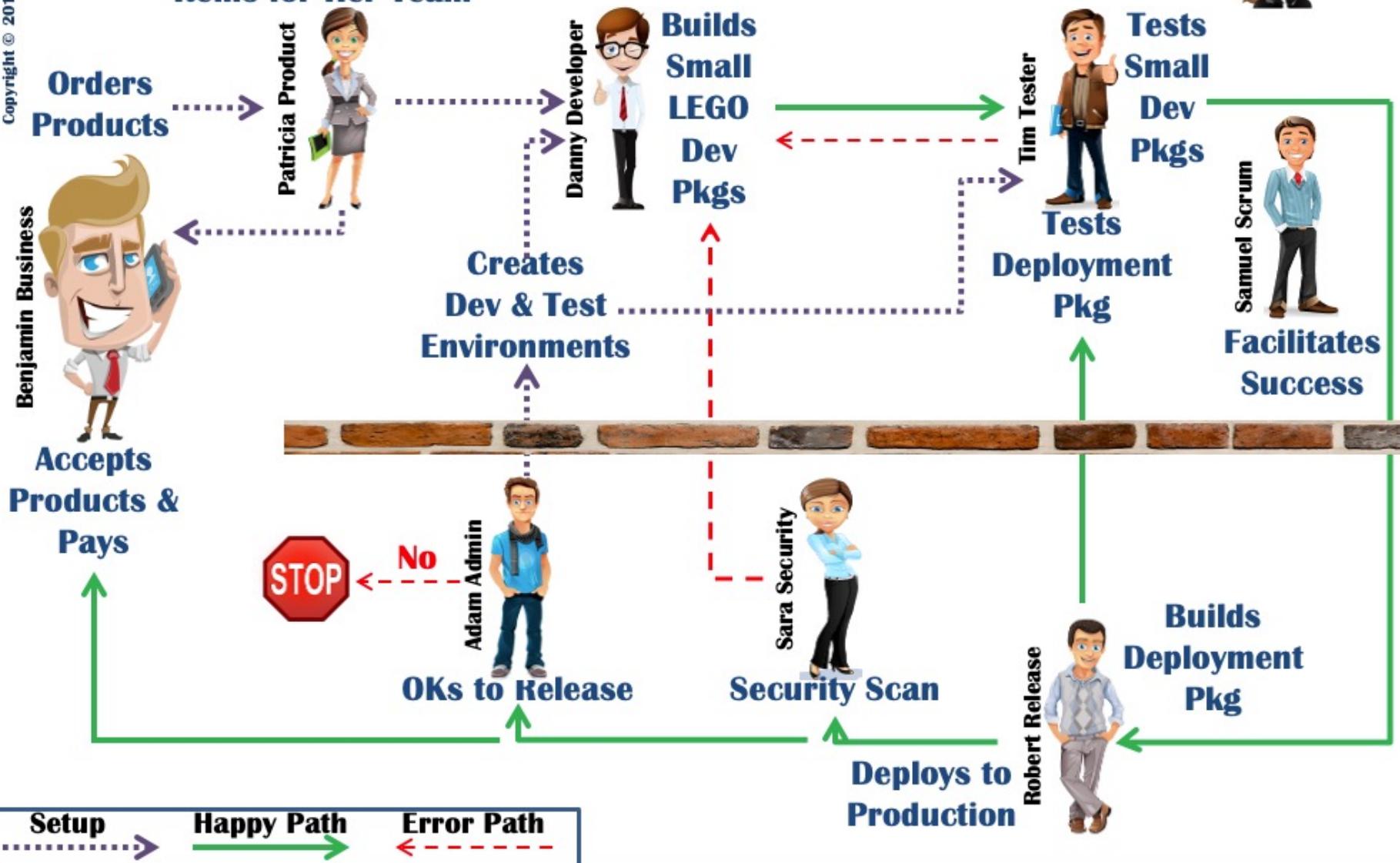
**Sprint 2: First steps towards DevSecOps.**

**Sprint 3: Continuous Value Delivery.**

# Pick Your Role and Meet Your Team



# Chocolate and LEGO Simulation Flow: Sprint 1



# Sprint 1: Cyclical Value Delivery With Scrum

- Dev and Ops are separate teams.
- **Sys Admin** controls release schedule.
- **Security** tests are at the end of the Sprint.



# 18 minutes

# Turn and Talk

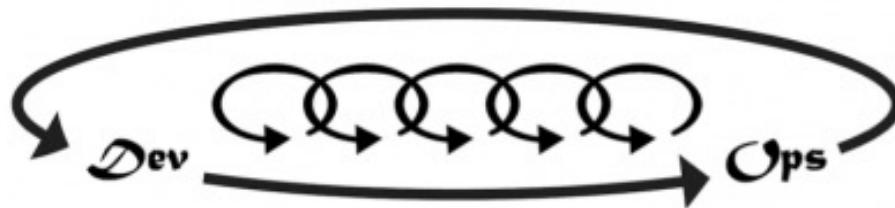
What Have You Observed in Sprint One?



# The Three Way. Basic Principles of DevOps Culture

## Second Way: Amplify Feedback Loop

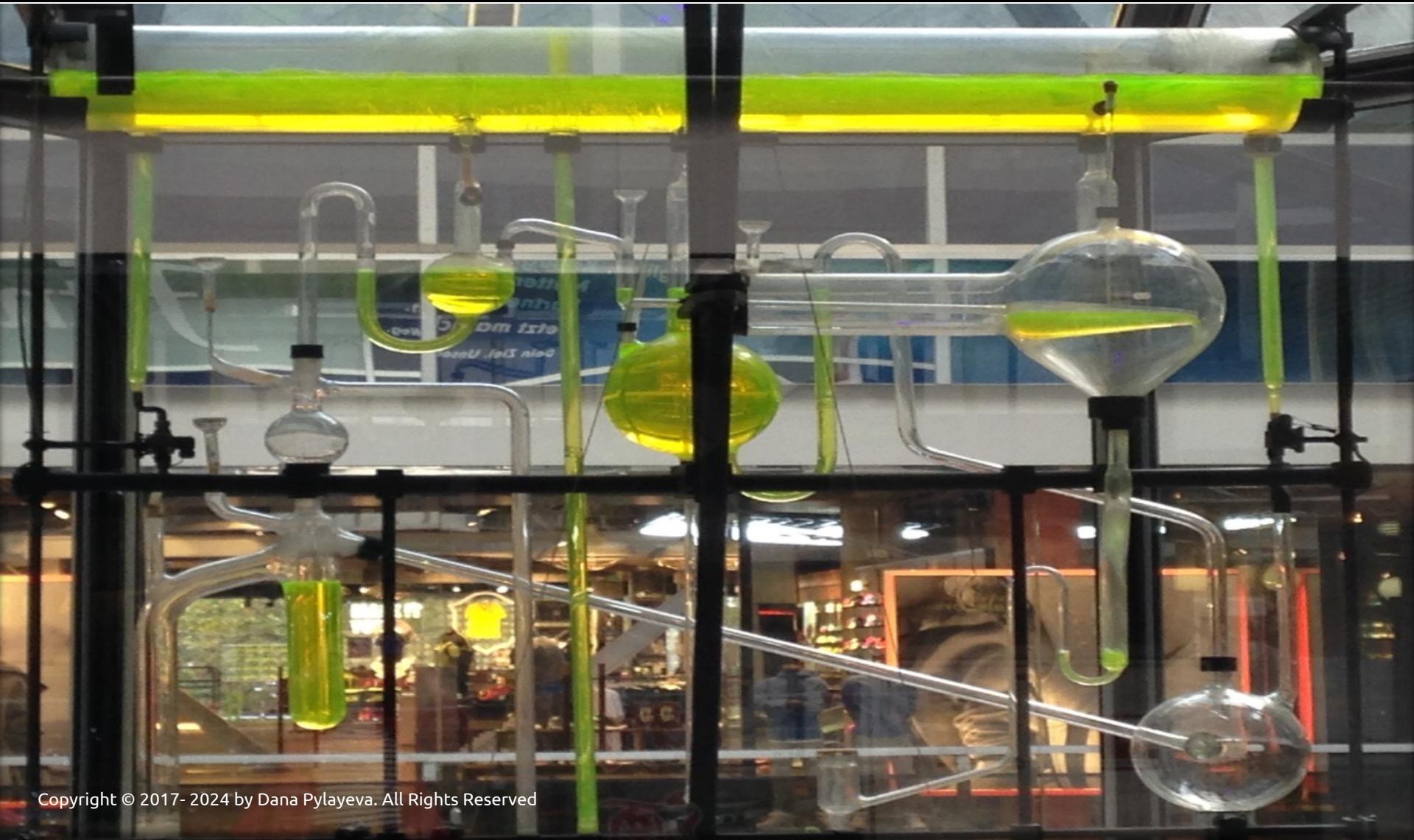
**Third Way:**  
**Culture of**  
**Continual**  
**Experimentation**  
**and**  
**Learning**



## First Way: Systems Thinking

**Figure 5: The Three Ways** (Source: Gene Kim, "The Three Ways: The Principles Underpinning DevOps," IT Revolution Press blog, accessed August 9, 2016, <http://itrevolution.com/the-three-ways-principles-underpinning-devops/>.)

# Optimize Your Flow



# Typical Bottlenecks in DevOps Transformation



1. Environment creation.
2. Large batch size code merges.
3. Code deployment.
4. Test setup and run.
5. Overly tight architecture.
6. People unwilling to change.



Fix  
Your  
Worst  
Bottleneck First!

“Any improvements made anywhere  
besides the bottleneck are an illusion.”

[Gene Kim, The Phoenix Project: A Novel About IT, DevOps, and Helping Your Business Win](#)

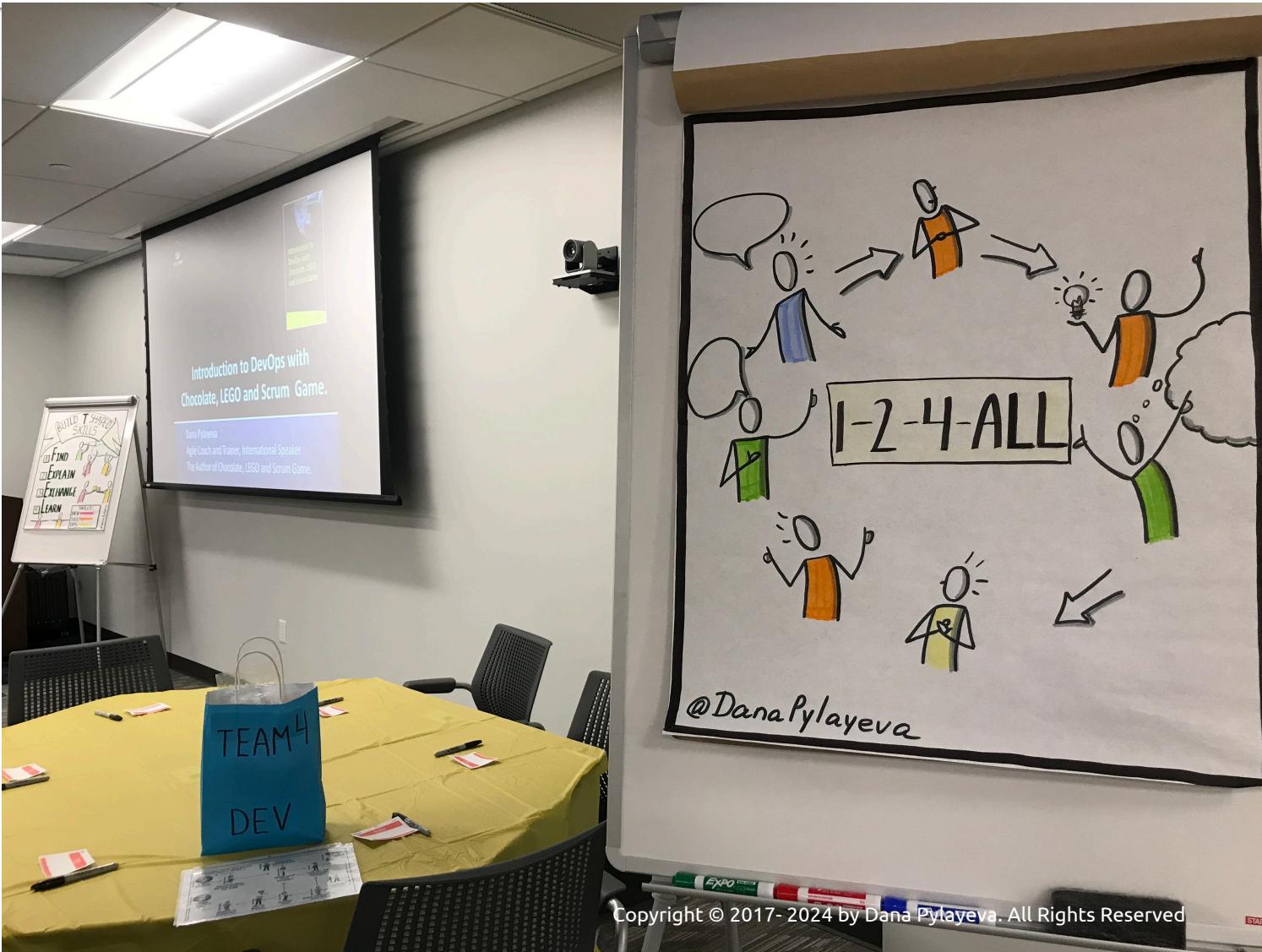
# Sprint 2: First Steps Towards DevSecOps

- Move **Security** to the left - learn about security issues **before** implementation.
- Build **T-shaped** skills with cross-training.
- Invite Operations into your teams.



# 18 minutes

# Debriefing with Liberating Structures



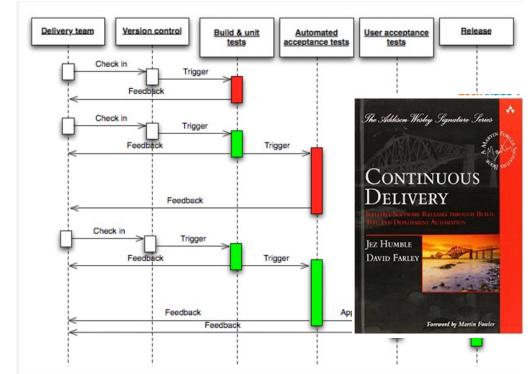
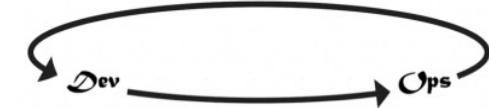
# The Three Ways. Basic Principles of DevOps Culture

## Second Way: Amplify Feedback Loop



1. Small  
Batches

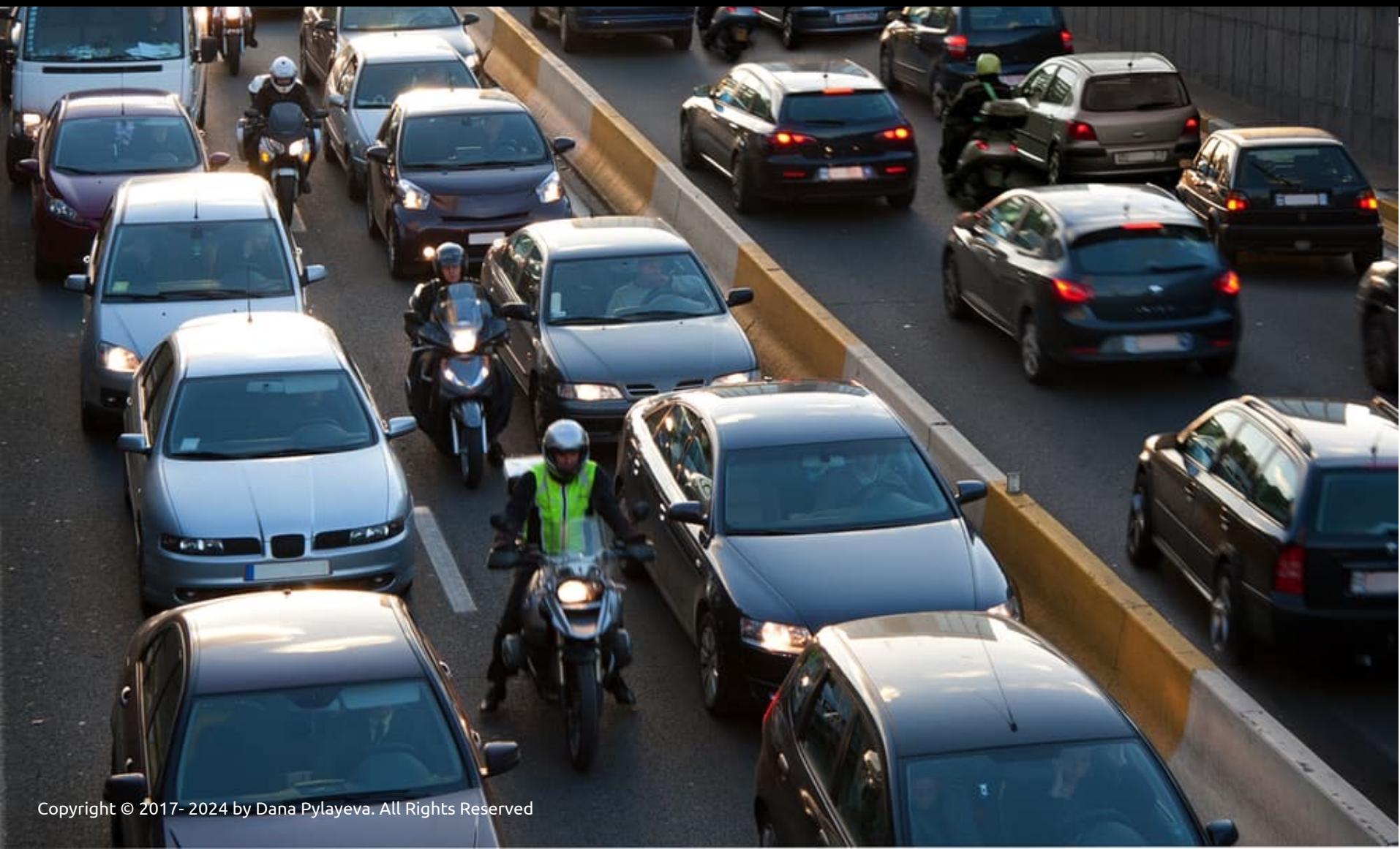
2. CI/CD



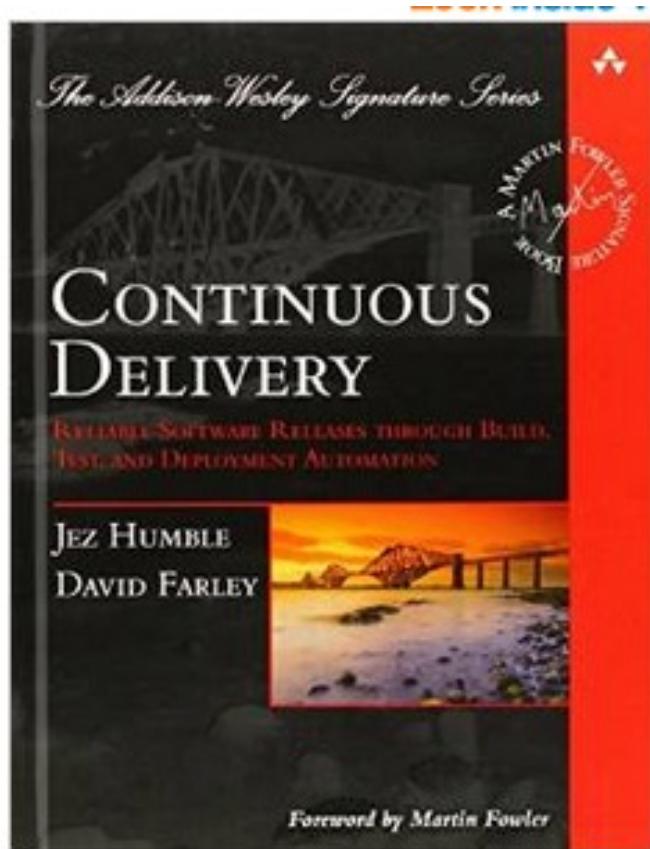
3. Live Production  
Monitoring by Teams



# Split Work Into Smaller Batches

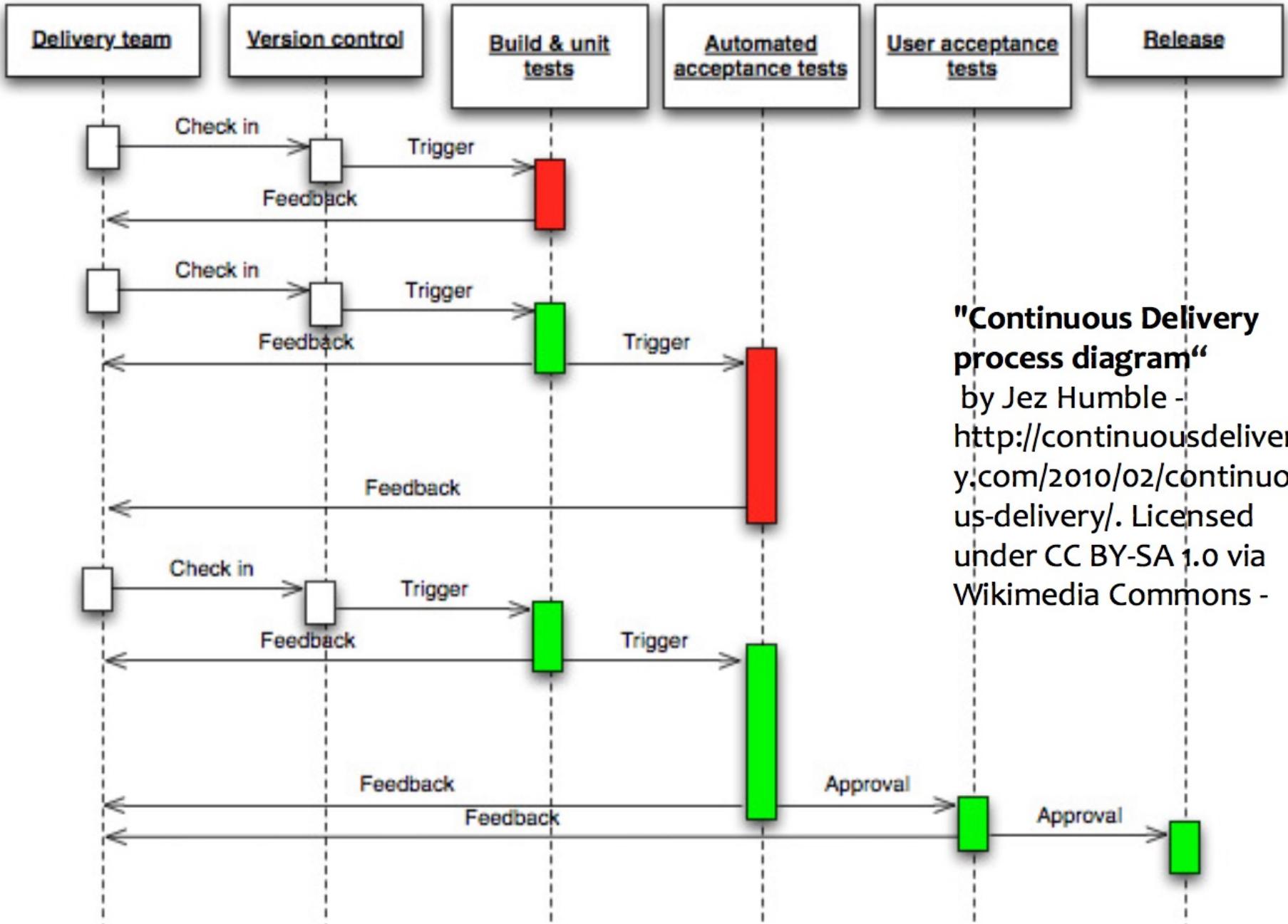


# Enable Continuous Delivery (CD)



“...software development strategy that optimizes your delivery process to get high-quality, valuable software delivered as quickly as possible...”

Jez Humble

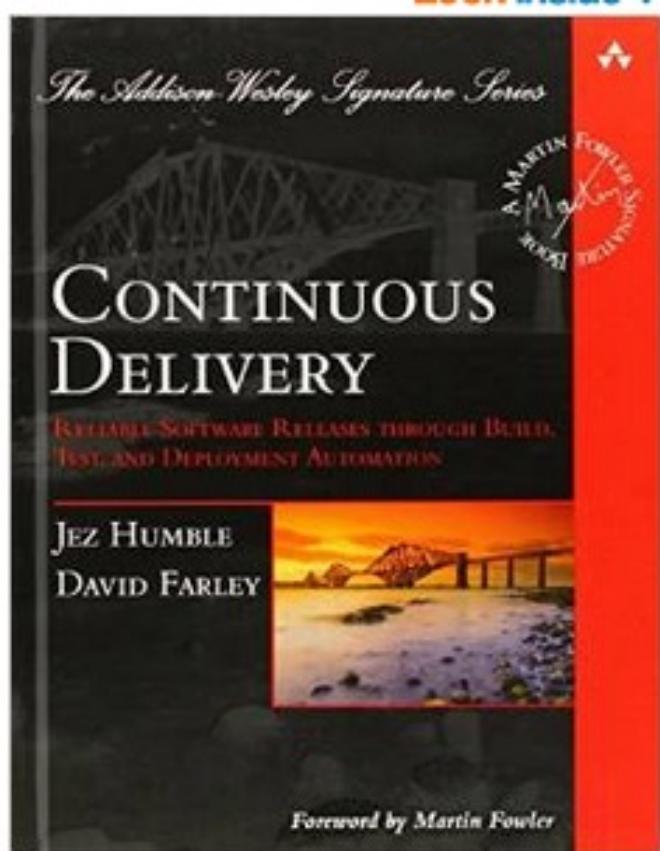


"Continuous Delivery process diagram"  
by Jez Humble -  
<http://continuousdelivery.com/2010/02/continuous-delivery/>. Licensed under CC BY-SA 1.0 via  
Wikimedia Commons -

# Live Production Monitoring by Teams

- 
- Telemetry – implement, collect, make visible to all.
  - On-call rotation
  - Have developers initially self-manage their instance of production servers.

# Why Not CD?



- “Job security” - people are reluctant to automate
- “We’ve always done it this way” – antiquated policies
- Outdated understanding of Segregation of Duty
- External dependencies
- Fear of change



**Still  
Not  
Convinced?**

# Time from Vulnerability Discovery to Exploit

45  
Days

3

Days

15  
Min  
2022

2017

2006

# Sprint 3: Continuous Value Delivery

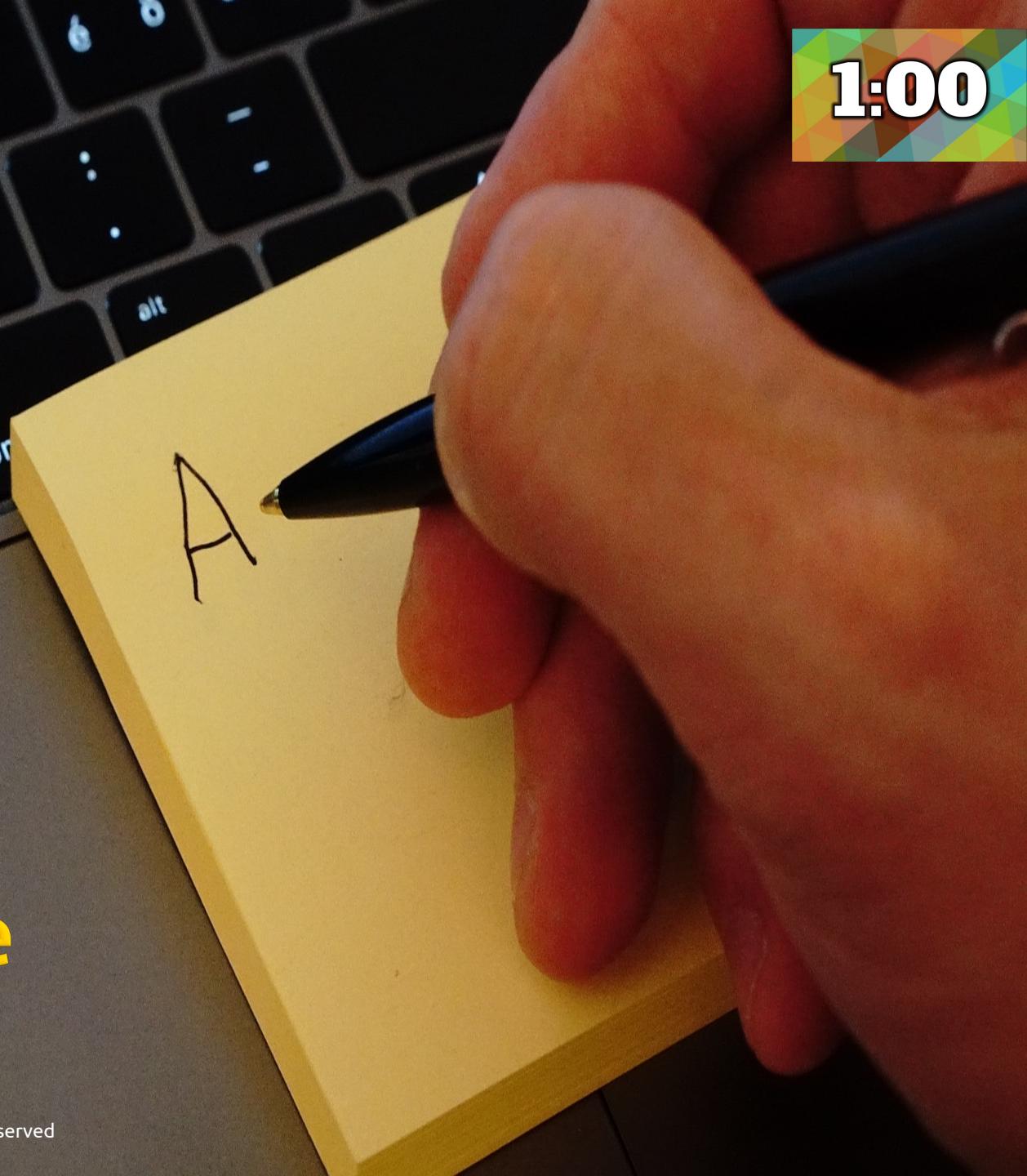
- Business Change: Enable better flow with **reduced batch sizes**.
- Technology Change: Accelerate the feedback loop and enhance security with **containerization**.
- Enable **environment creation** on demand.



18 minutes

1:00

Think and  
Write.  
What Aha!  
Moments  
did you have  
so far?



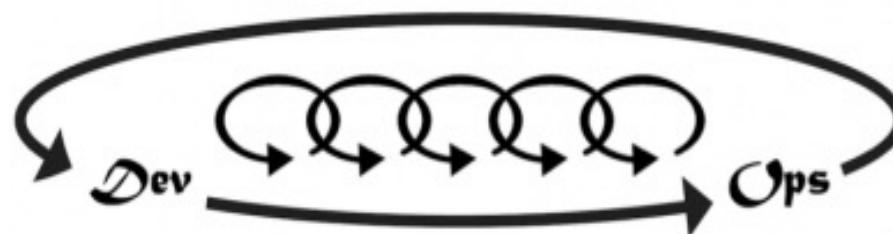


# Fishbowl Debriefing

- Five chairs.
- One is always empty as an invitation.
- Anyone can join.
- Only people in fishbowl can talk.

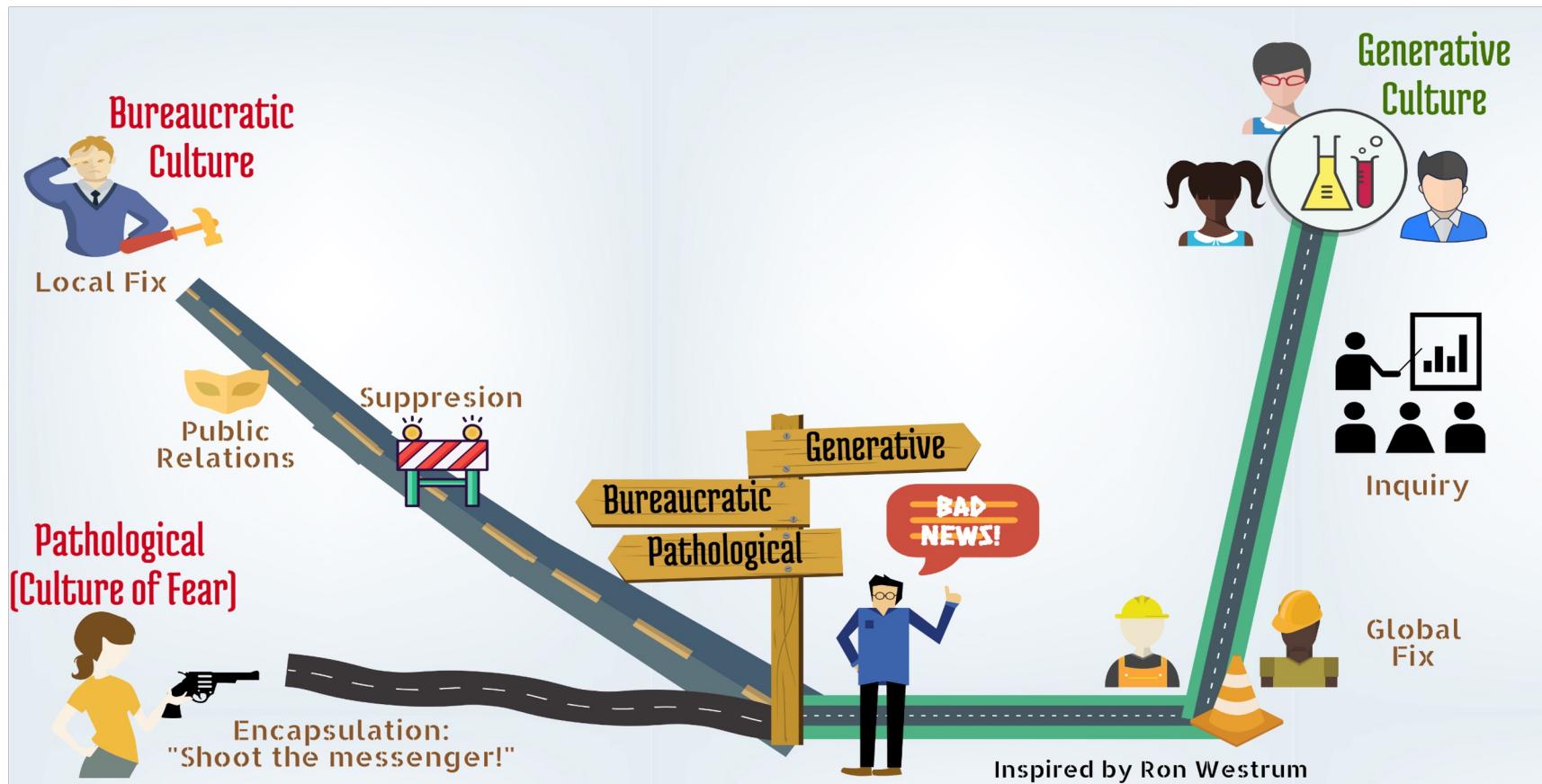
# The Three Ways – Basic Principles of DevOps Culture

Third Way: Culture of Continual Experimentation and Learning



**Figure 5:** The Three Ways (Source: Gene Kim, "The Three Ways: The Principles Underpinning DevOps," IT Revolution Press blog, accessed August 9, 2016, <http://itrevolution.com/the-three-ways-principles-underpinning-devops/>.)

# Fear Cripples Information Flow



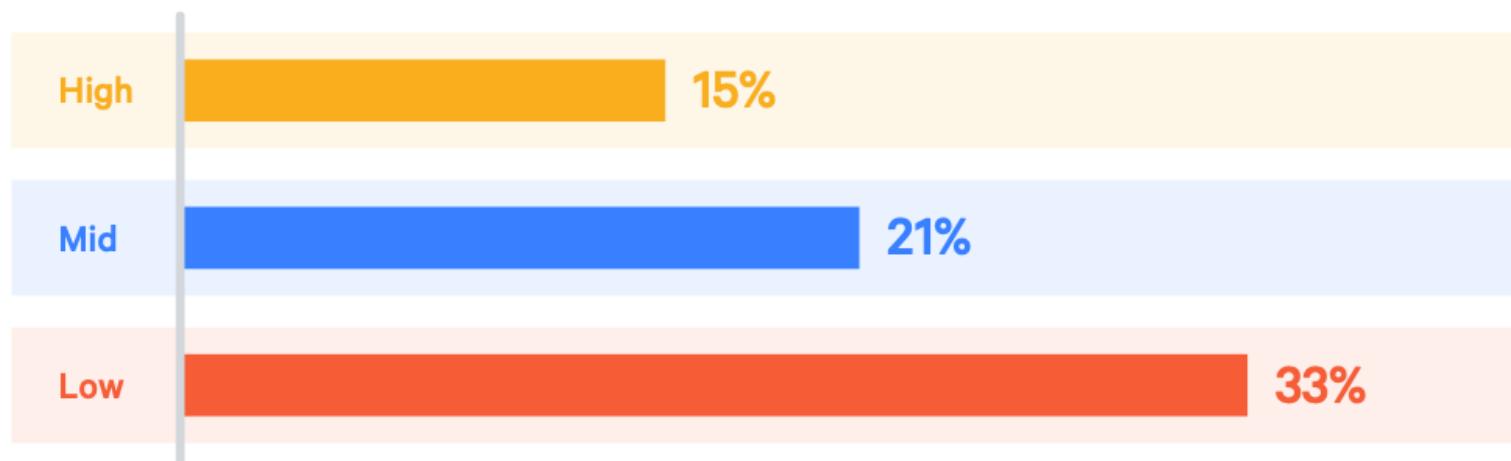
# Why Psychological Safety?

“A culture of psychological safety contributes to SDO performance, organizational performance, and productivity, showing that growing and fostering a healthy culture reaps benefits for organizations and individuals.”



# Risk Aversion Impedes Progress

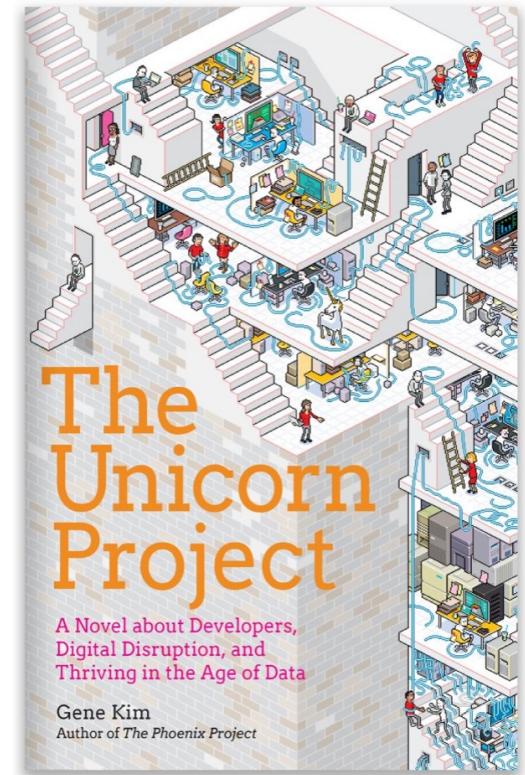
Our culture discourages risk



Source: State of DevOps 2021 by Puppet

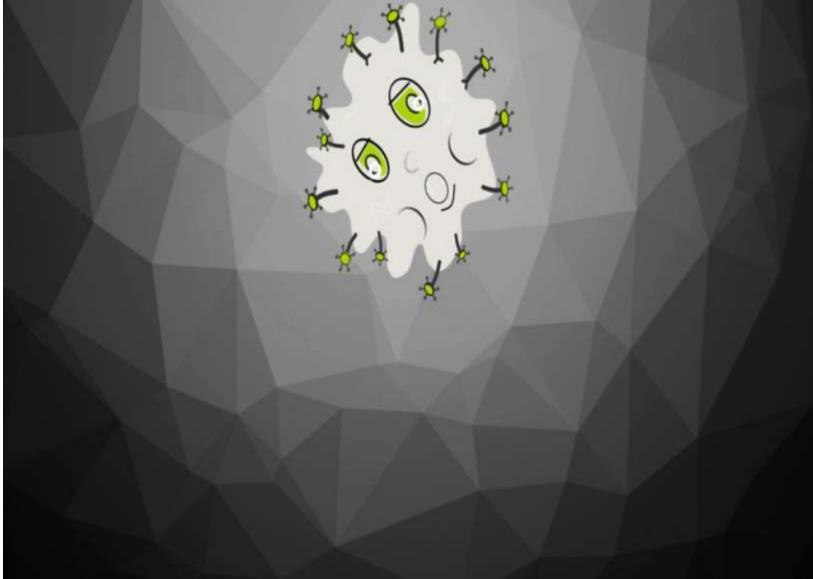
# Why Psychological Safety?

“The Fourth Ideal is Psychological Safety, where we make it safe to talk about problems, because solving problems requires prevention, which requires honesty, and honesty requires the absence of fear.”

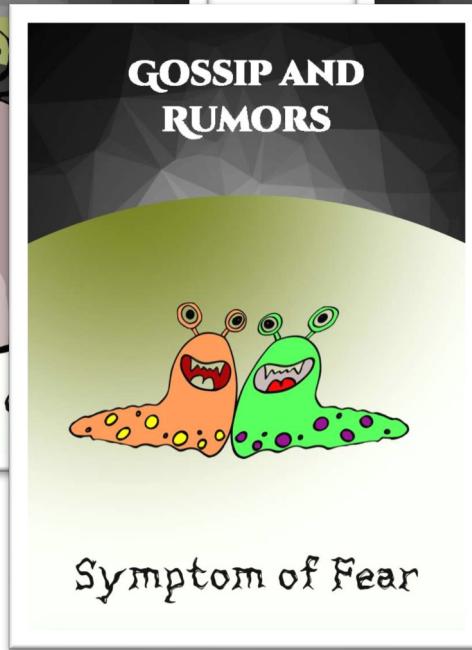
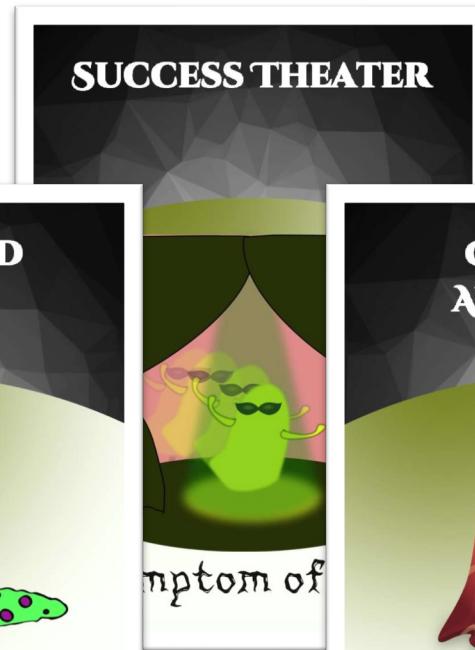


# **BIGGEST IMPEDIMENT TO DEVSECOPS ADOPTION AND HIGH PERFORMANCE**

**Fear in the  
Workplace**

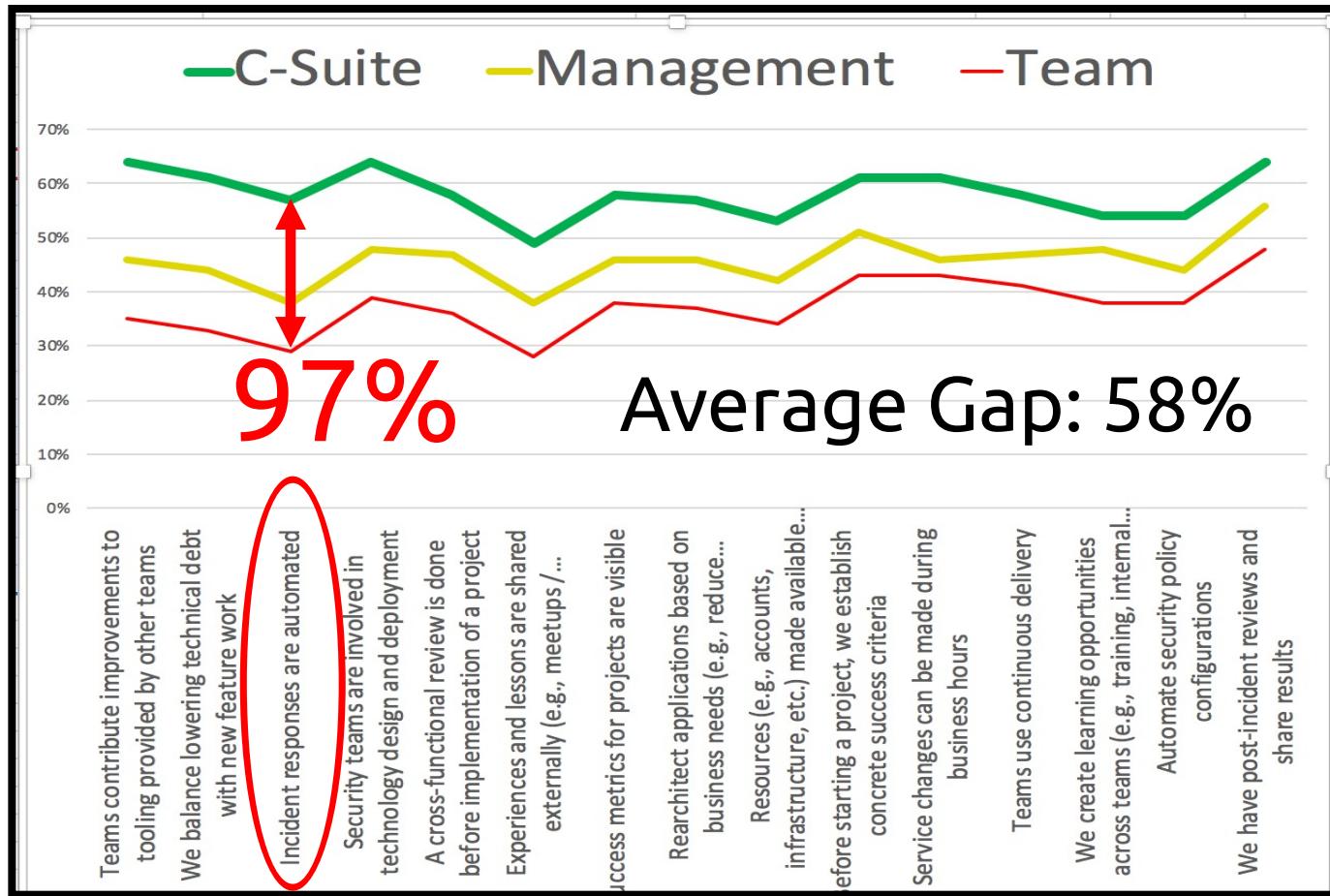


# Symptoms of Fear in Organizations



# Success Theater of DevOps Adoption

## Differences in Perception of DevOps Practices in Use



# Fear in the Workplace Game



# Give it a try!



1. Distribute all **"Fears and Symptoms"** cards to players at your table.

# Give it a try!

2. One player reads a Classify Me card.
3. Everyone works together to create a story using Fears and Symptoms cards from their hands.



# What Surprised You?





25/10



If You Were **10** Bolder, What Big Ideas Would You Experiment With in Your Organization?