

# Why Microsoft Does DevOps

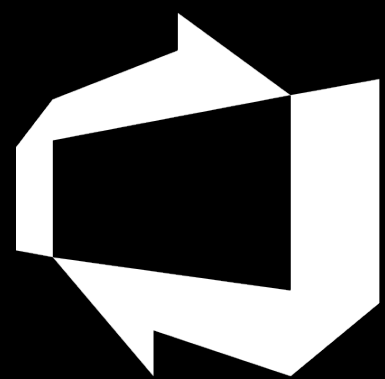
Martin Woodward  
@martinwoodward





# Martin Woodward

[martinwo@microsoft.com](mailto:martinwo@microsoft.com)

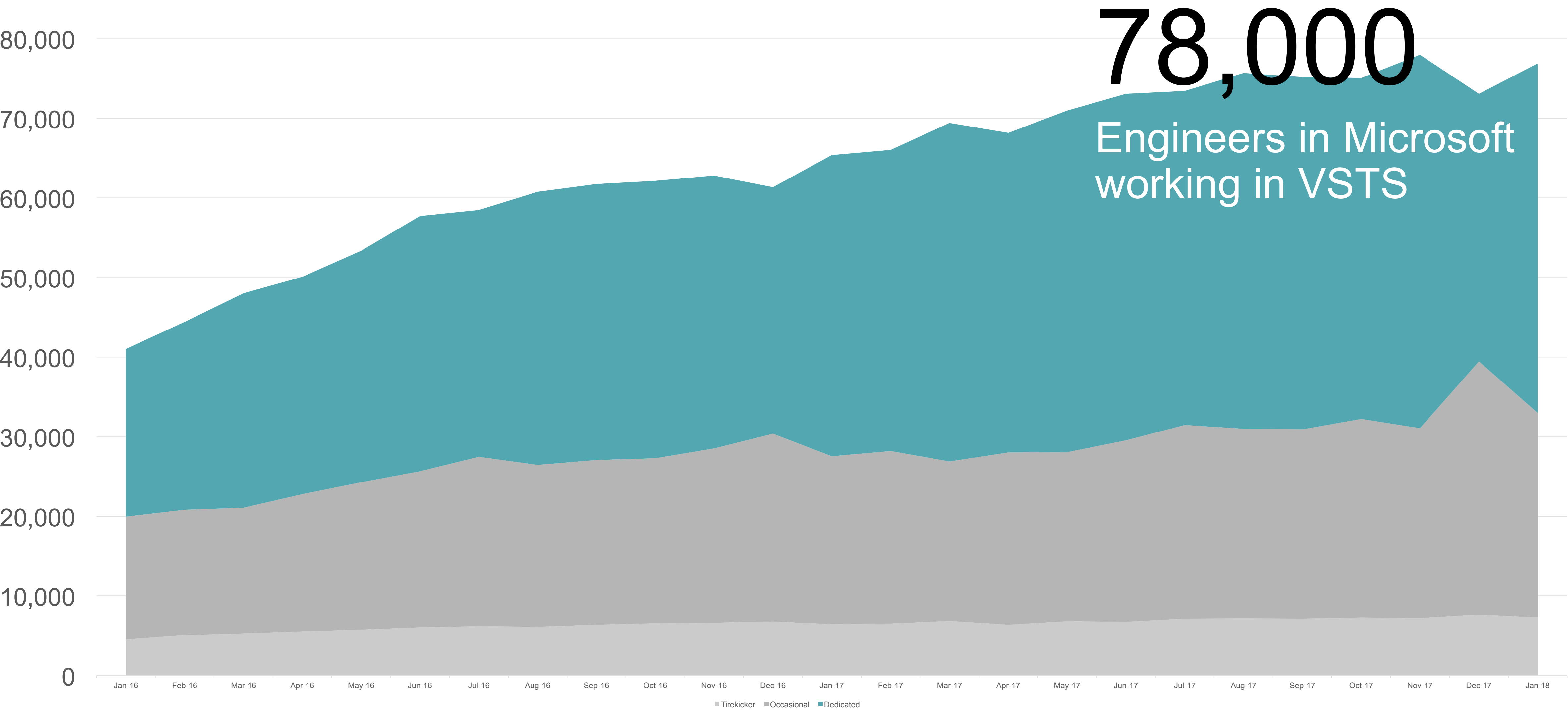


Visual Studio  
Team Services

@martinwoodward



# Engineers in VSTS Microsoft







# 78,000

Engineers in Microsoft  
working in VSTS

---

One second per day is like  
adding

2.7 More People  
To Microsoft

One minute per day is like  
adding

163 More People  
To Microsoft

One hour per day is like adding

\$1.95B  
Per year

# Microsoft Internal Engineering in VSTS by the Numbers

2.8m

Pull requests

> 4m

Builds per month

5m

Work items  
viewed per day

> 15m

Git Pushes

500m

Test executions  
per day

500k

Work items  
updated per day

42,000

Deployments per day

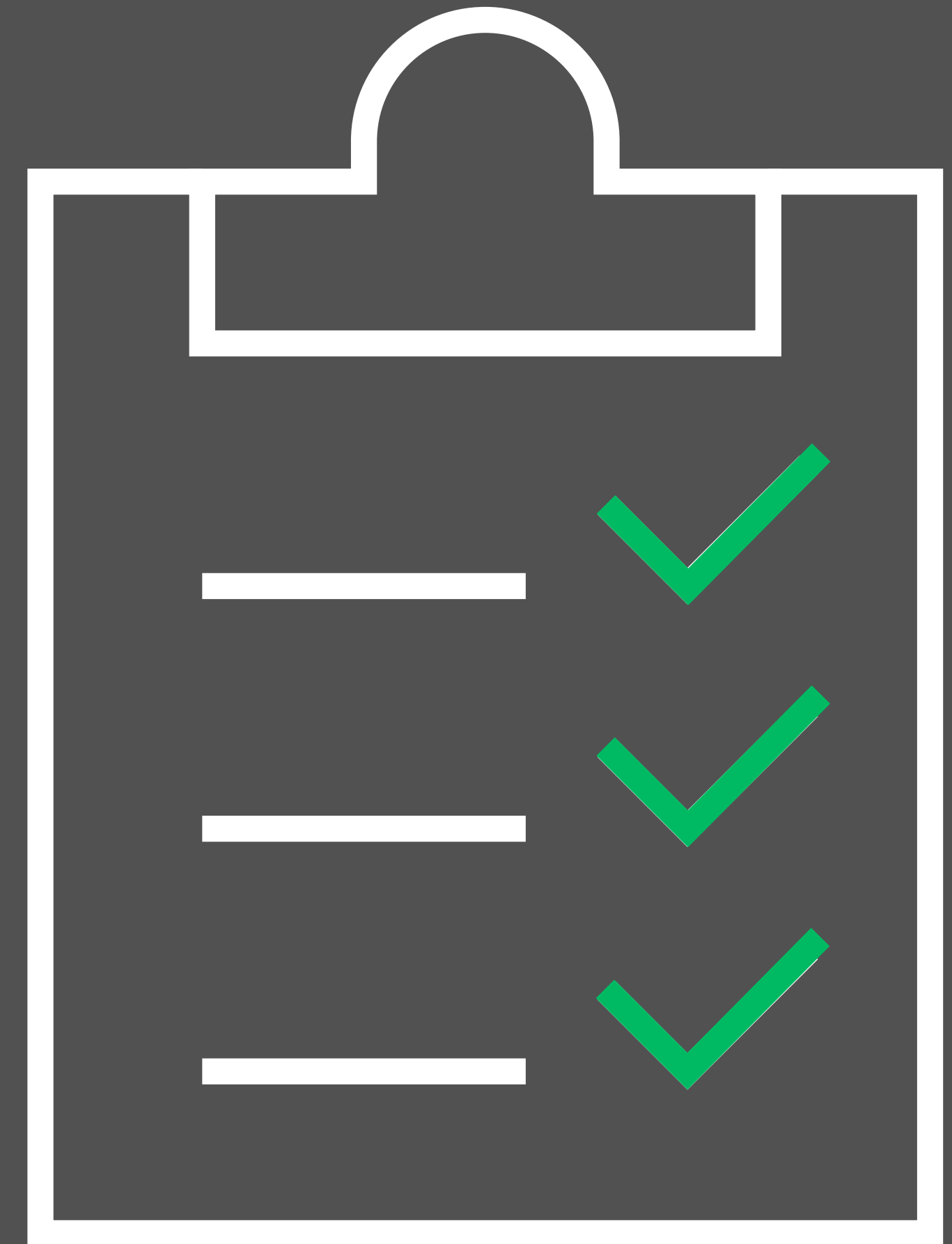
Data: Internal Microsoft engineering system activity during calendar year 2017

# Shipping is a Feature



# Azure DevOps Definition of Done

Live in production,  
collecting telemetry  
that examines the  
hypothesis which  
motivated the  
deployment.



# Everybody tests in production

# Customer Obsessed DevOps



# Measure Impact Not Activity

## Usage

**Acquisition**  
**Engagement**  
**Satisfaction**  
**Churn**  
Feature Usage

## Process Velocity

Time to Build  
Time to Self Test  
Time to Deploy  
Time to Learn

## Live Site Health

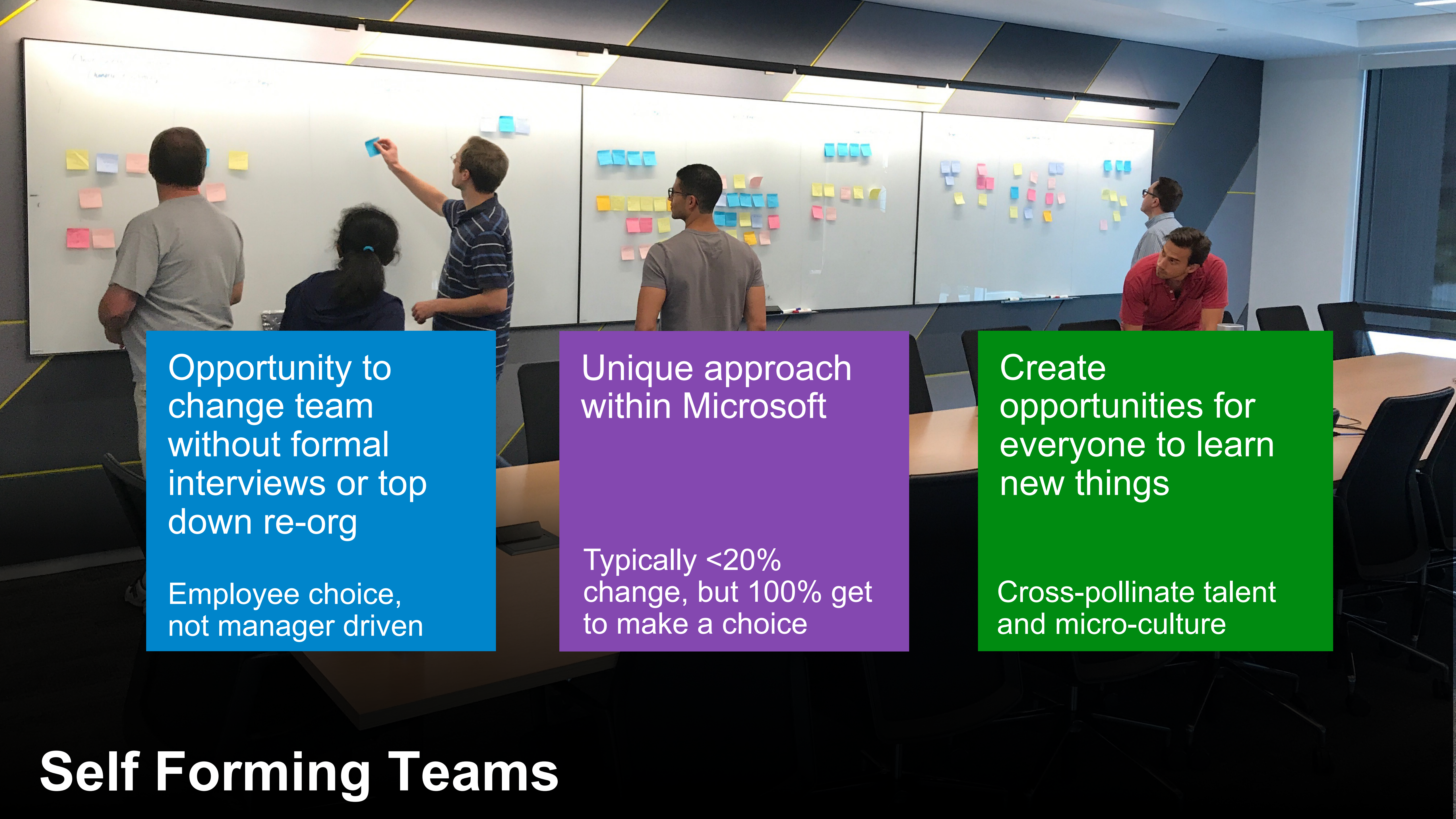
Time to **Detect**  
Time to **Communicate**  
Time to **Mitigate**  
Customer **Impact**  
Incident Prevention Items  
Aging Live Site Problems  
**SLA per Customer**  
Customer Support Metrics

## Things we don't watch

Original estimate  
Completed hours  
Lines of Code  
Team capacity  
Team burndown  
Team velocity  
Number of bugs fixed

# Sustainable DevOps Teams





Opportunity to  
change team  
without formal  
interviews or top  
down re-org

Employee choice,  
not manager driven

Unique approach  
within Microsoft


Typically <20%  
change, but 100% get  
to make a choice

Create  
opportunities for  
everyone to learn  
new things

Cross-pollinate talent  
and micro-culture

# Self Forming Teams



Microsoft  Linux







Microsoft

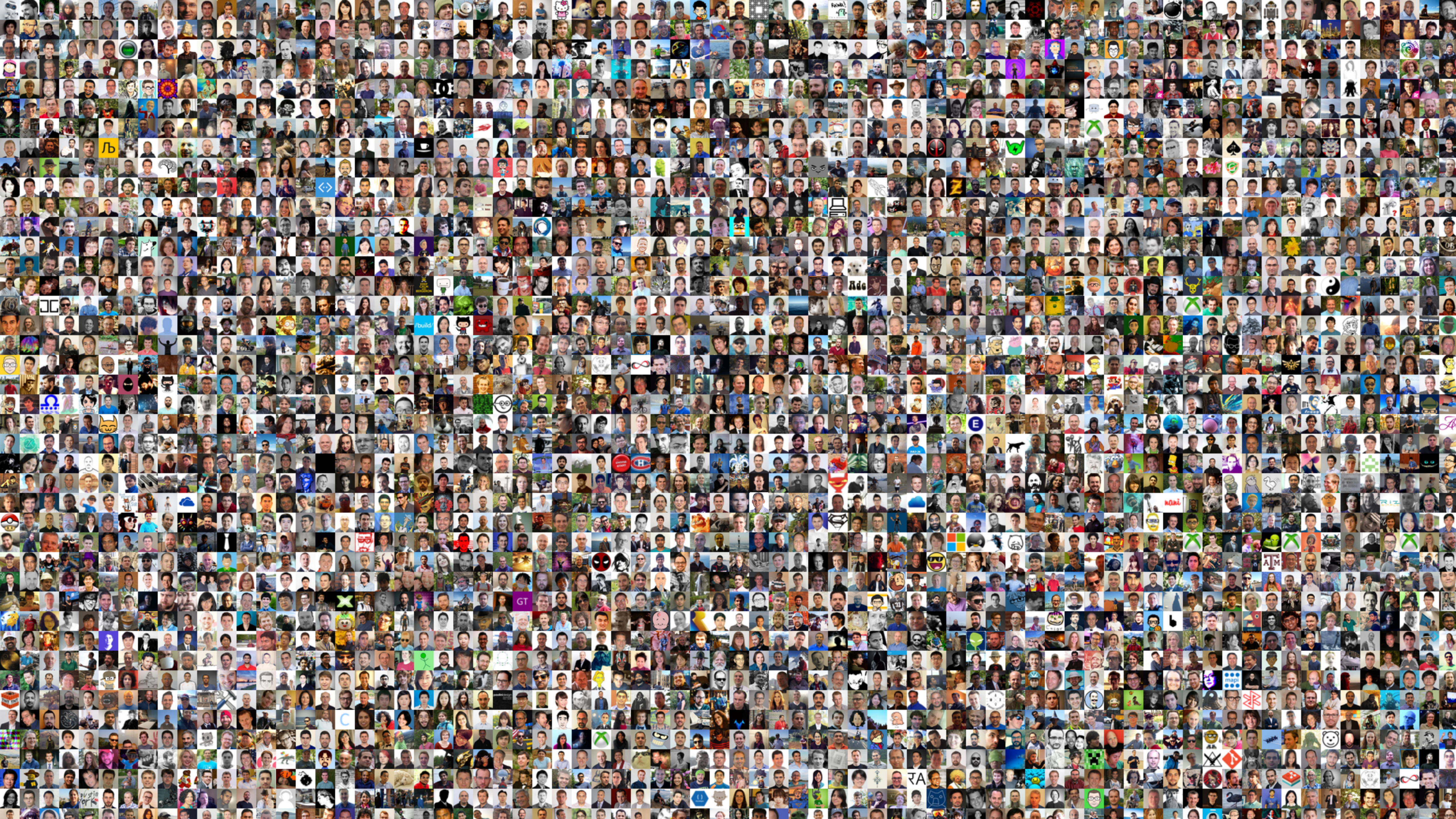


GitHub











Thank you!

Martin Woodward

[martinwo@microsoft.com](mailto:martinwo@microsoft.com)

[@martinwoodward](#)

How Microsoft Does DevOps

Wed 1:15pm

LL20 D

