

Anyone Can Cook Anywhere:

**DORA's Recipe for Improvement in Software
Delivery Performance**



| **Ford Credit**



Geleta
(Software Engineer)



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Jeremy
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Wil
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Eileen
(Precocious PO)



Tara
(Product Visionary)



Andrew
(Tech Lead)



Soufiane
(Software Engineer)



2019 Escape

MSRP: \$24,999



Lease Mileage

Miles Allowed (1)
36,253

Lease End Date
9/16/2024
(for final remaining)

Current Mileage

Current Miles (1)

13,593

Renewal date

[View Lease Agreement](#)

Current Mileage Status



Predicted Miles at Lease End



Based upon your current driving habits you are ahead of schedule by **1,976 miles**.

Your excess mileage charges are estimated to be **\$295.16**.
(Excess mileage is \$0.15 per mile)

Reducing your average miles per day could help to reduce the excess mileage charges.

Wear and Use

Your lease vehicle is expected to be returned in good condition. However, Ford Credit allows for normal wear and use. Wear and/or use outside normal guidelines could result in excess wear and use charges.

[Wear and Use Guidelines](#)

Our Lease Renewal Guide contains important lease-end details and visual examples of chargeable damage.

[Lease \(Renewal\) Guide](#)

Scheduling Your Inspection

Once you have reviewed all your options and decided to return your vehicle, Alliance Inspection Management (AIM) will assess its condition. You are now eligible to schedule an inspection of your vehicle using AIM's Self Scheduling tool, which is available 24/7.

You will be required to enter your Ford Credit 8 digit account number and VIN to schedule your inspection.

If you are unable to schedule your inspection online, please contact Ford Credit at [1-800-777-7000](tel:1-800-777-7000) between the hours of 8:00 a.m. and 8:00 p.m. ET, Monday-Friday.

[Schedule Inspection](#)

Digital Contract

Download a copy of the Lease Agreement you signed at Lease Inception.

[Lease Agreement](#)

Originating Dealer

Midland Ford Lincoln Merc.
500 Joe Mann Blvd
Midland, MI 48642

Phone:
[1-800-670-0040](tel:1-800-670-0040)

State-to-State Title Transfer

Do you need to transfer your vehicle's title from one state to another? Depending on the state you're transferring your title to, the process may differ. Please check the following document to find the correct process. For any questions, contact Customer Service at [1-800-777-7000](tel:1-800-777-7000).

[View Document](#)

Where Were We?



Delivering monthly



Need time to
recontextualize when
problems arise



Once
designated,
problems solved
mostly individuall
y



Culture of
maintaining our
ways of working

Themes and Models



Cockpit Resource Management



Developing a Generative Culture



Complex Adaptive Systems

Themes and Models



A culture of change
to change our performance

Changing Our Culture



We Are What We Do



Transformational
Leadership



You Can't Improve
What You Don't
Measure

By Changing Our Practices

How Do We
Measure Our
Progress?

DORA: Four Keys

how to measure software delivery performance?



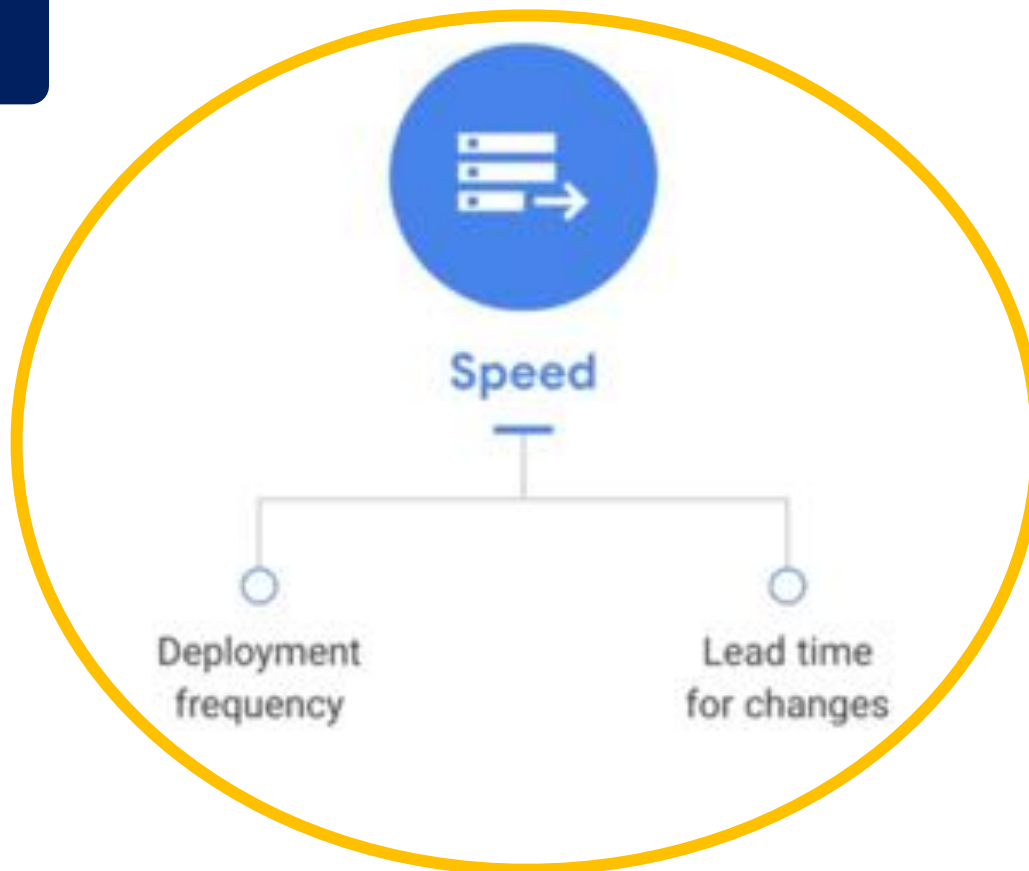
github.com/GoogleCloudPlatform/fourkeys



End of Q2 2021

DORA: Four Keys

how to measure software delivery performance?



How Do We
Speed Up?

DORA: 24 Key Capabilities

**Continuous
Delivery
(8)**

**Architecture
(2)**

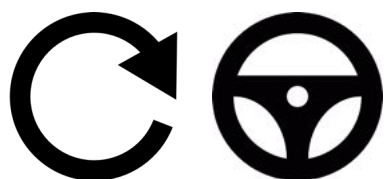
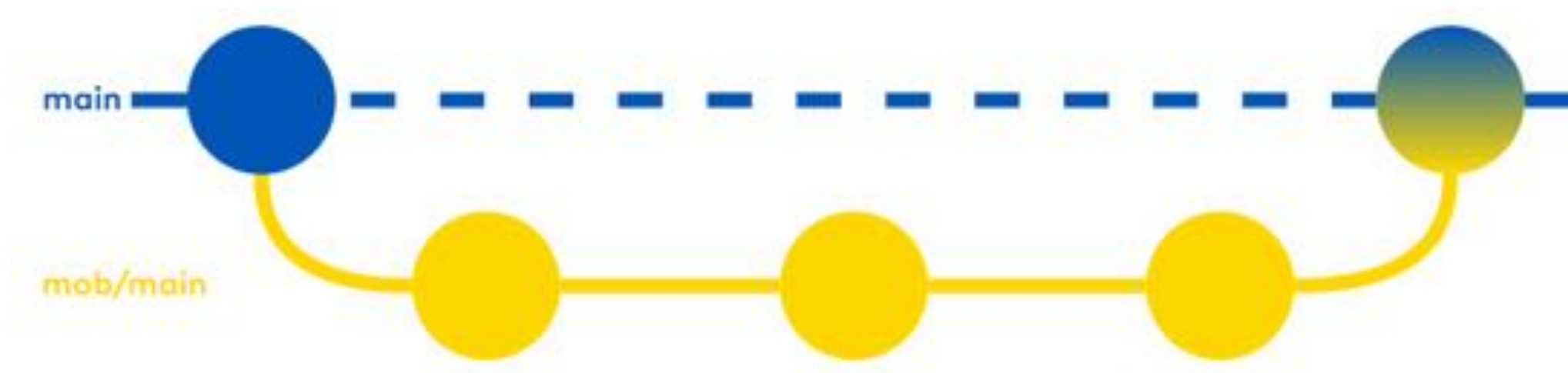
**Product & Process
(4)**

**Lean Management
& Monitoring
(5)**

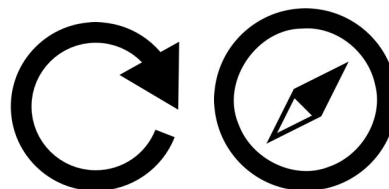
**Culture
(5)**

bit.ly/dora-bfd

Mob Programming



Rotate drivers



Rotate navigators!



Upskilling!

Support Learning

Support
Generative
Culture

Support
Meaningful Work
(Job Satisfaction)

Trunk-Based
Development

Trunk-Based Development

PR Deployment Strategy



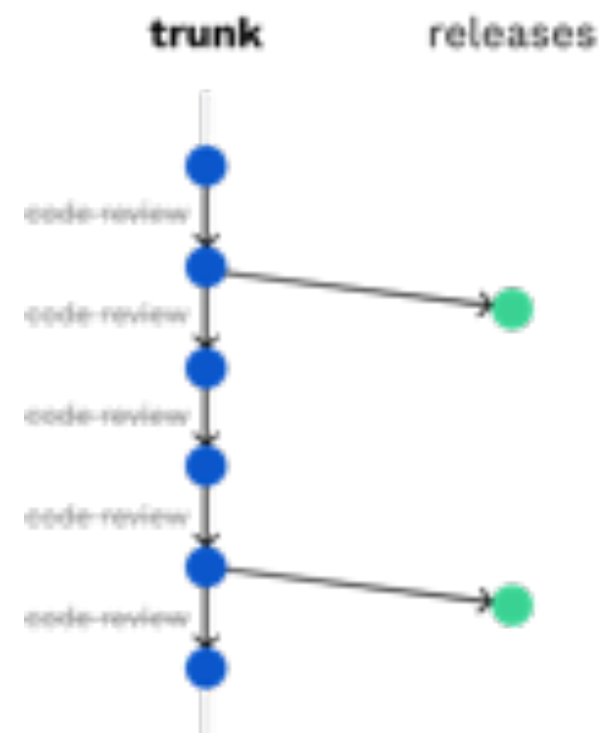
Trunk-Based



Small commits &
few merge headaches

Code review replaced
with pairing/mobbing

Works on strong trust in
automated testing



Deployment
Automation

Trunk-Based
Development

Continuous
Delivery (CD)

Daily Reflections

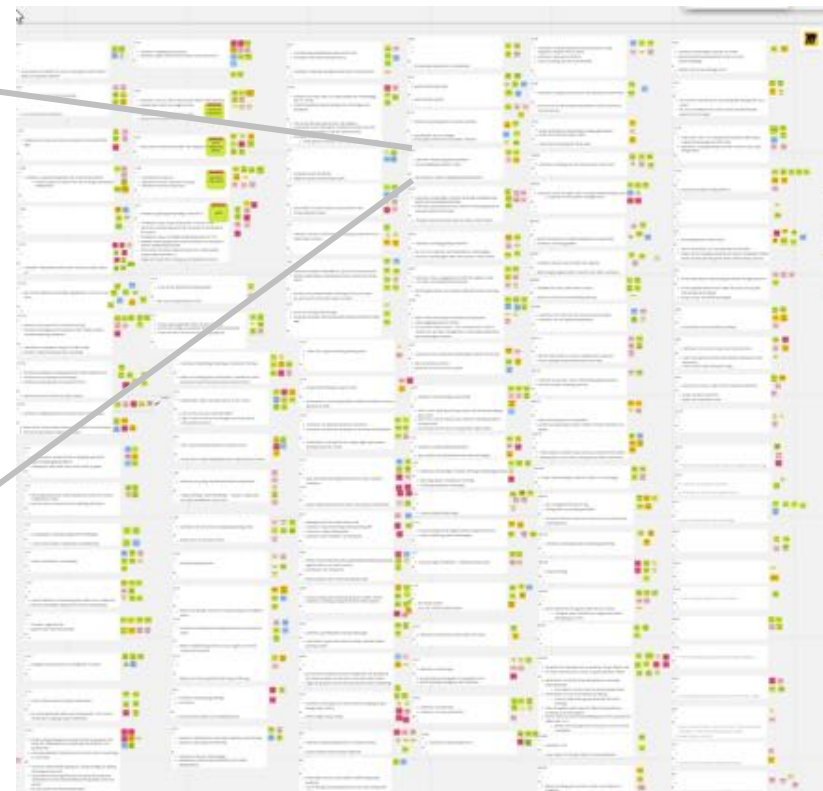
4/14

+:

- Continue improving dora practice
- Keep mobbing practices alive

Δ:

- Be proactive about updating dependencies



Support
Generative
Culture

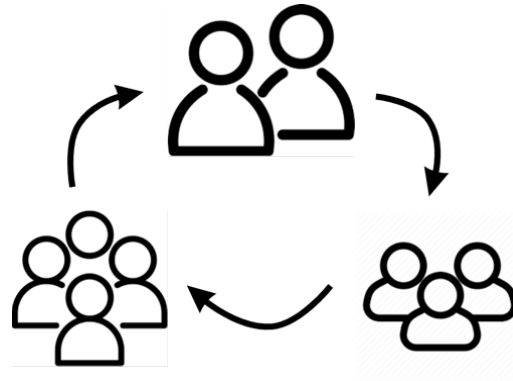
Foster Team
Experimentation

Support
Meaningful Work
(Job Satisfaction)

Smaller Daily Practices



Pomodoro
Timer



Experiment
w/ Mob Size



Open Door
Policy



Housekeeping

Foster Team
Experimentation

Support
Generative
Culture

Support
Transformational
Leadership

Power-Up Time



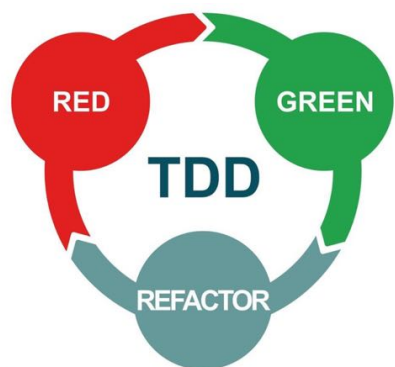
Dedicating Friday afternoons to pursue learnings

Support
Meaningful Work
(Job Satisfaction)

Support Learning

Foster Team
Experimentation

Test Driven Development



Red Green
Refactor



Commit
Hooks



Contract
Testing



Service
Virtualization

Deployment
Automation

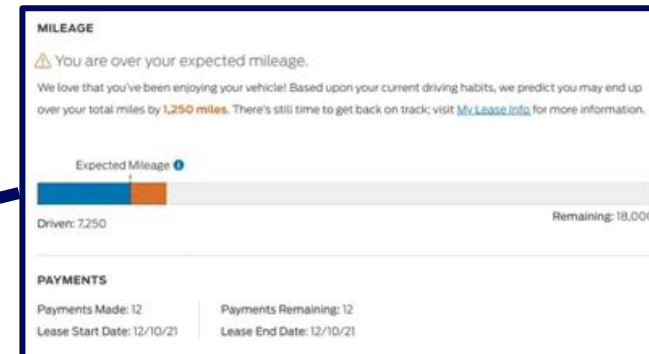
Continuous
Delivery (CD)

Test Automation

Work In Small
Batches

Support Learning

Bi-Weekly Demos



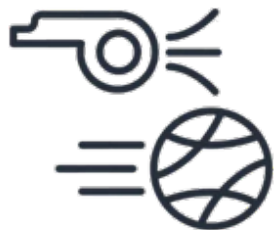
Pushes team to Demo something new every two weeks

Continuous
Delivery (CD)

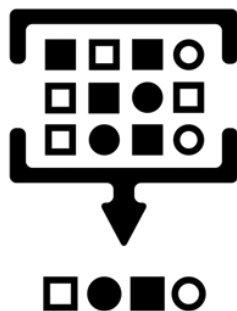
Work In Small
Batches

Support
Meaningful Work
(Job Satisfaction)

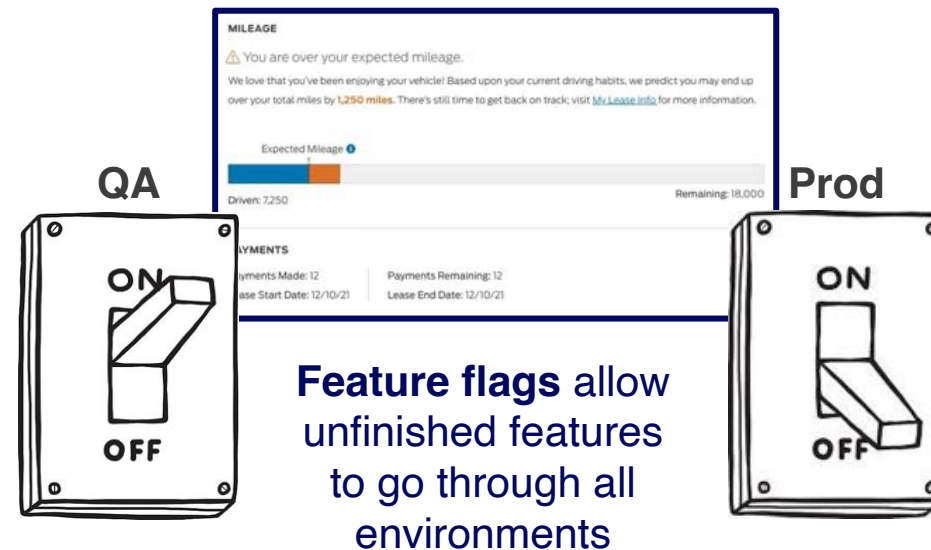
Simplifying Pipelines



Singular pipeline spins up on commit



Deduplicated pipelines across environments



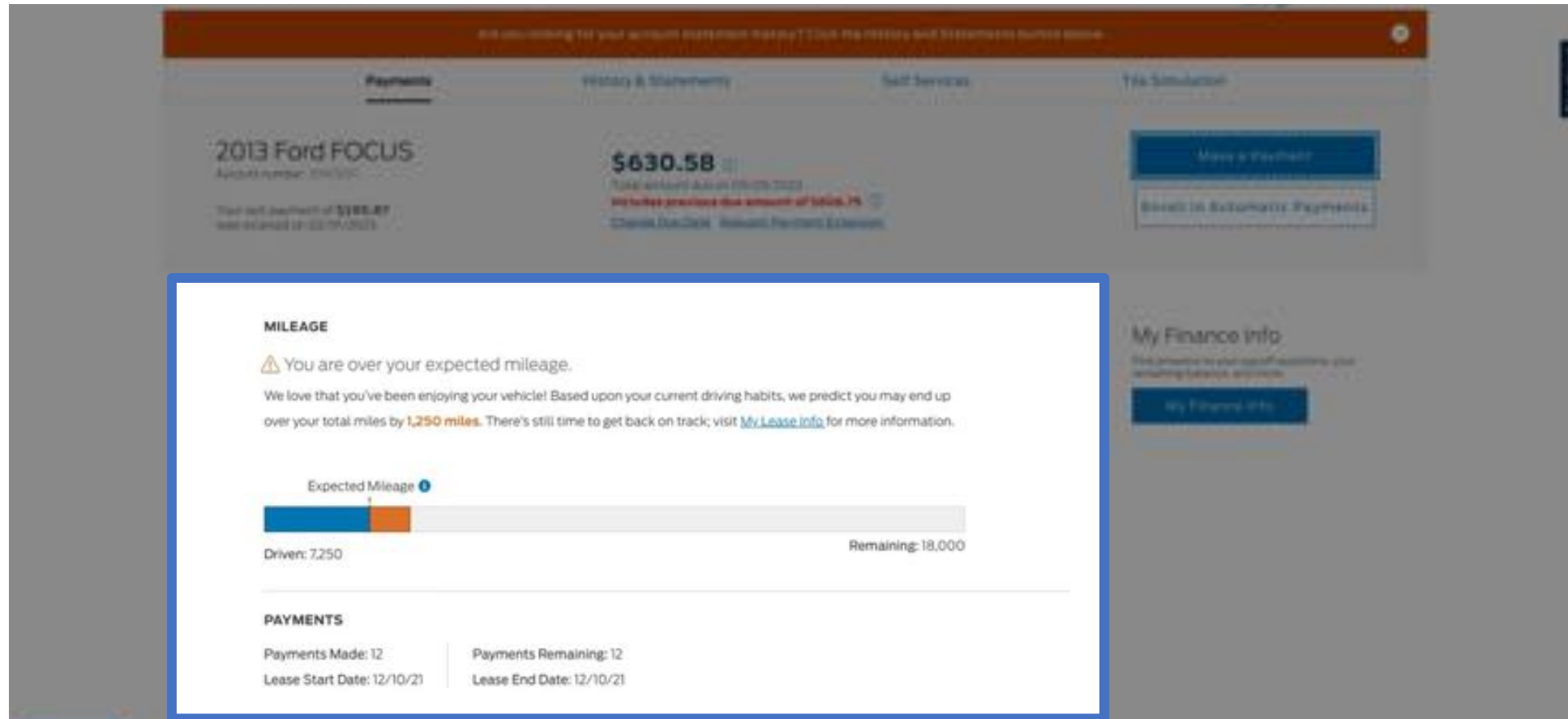
Deployment Automation

Continuous Integration (CI)

Continuous Delivery (CD)

Test Automation

Web Components



Loosely Coupled
Architecture

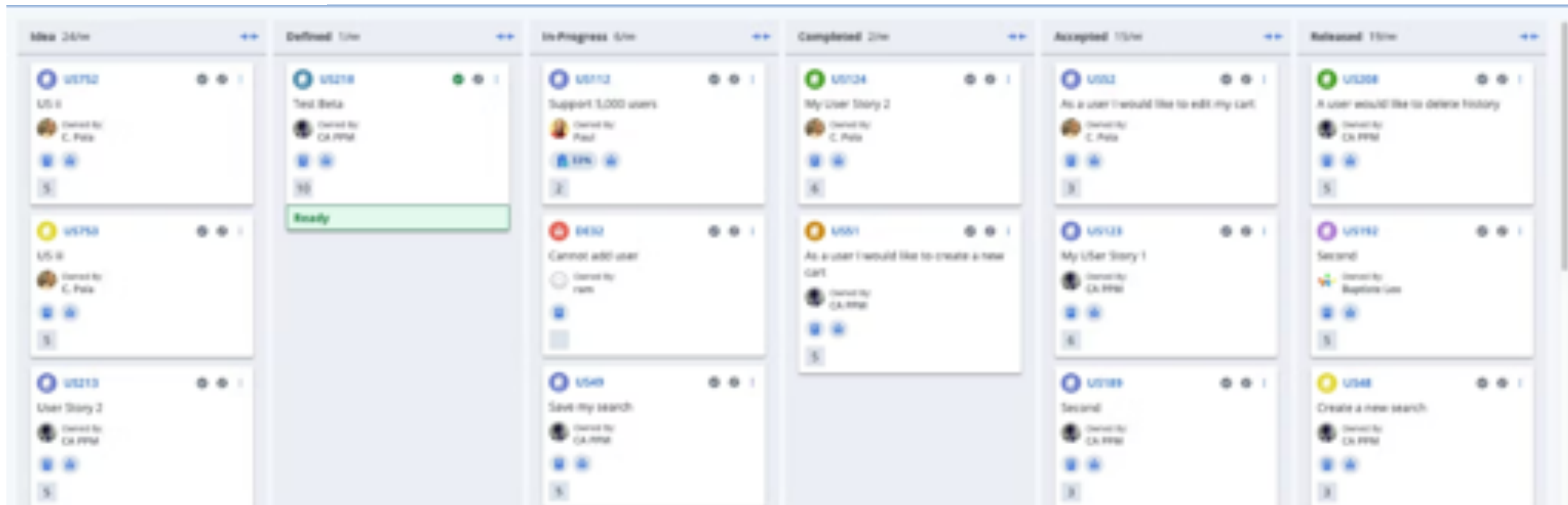
Architect For
Empowered
Teams

Lightweight
Change Approval
Process

Support
Collaboration
Among Teams

Kanban Norms

Before



Flow Of Work
Visible Through
Value Stream

Work-In-Process
Limits

Work In Small
Batches

Kanban Norms

After



Flow Of Work
Visible Through
Value Stream

Work-In-Process
Limits

Work In Small
Batches

Customer-Based Decision Making

Click Through Data (Adobe Analytics)



Experimentation Data (Optimizely)

	Unique Conversions	Visitors	Conversion Rate
control	22,544	46,454	48.53%
treatment	23,184	47,009	49.32%

Group that doesn't see the mileage calc

Group that does see the mileage calc

View Graph

Customer Feedback (Medallia)

Month:	July	August	September	Past 3 Months (Average)
Did you find information on this page that you may have otherwise contacted the Ford Credit Customer Service Center for?				
Yes	57.3%	57.0%	52.4%	56.7%
No	42.7%	43.0%	47.6%	43.3%
Thinking about the visit to your My Lease Info page, did you find the information provided there helpful?				
Yes	83.8%	88.4%	84.2%	85.9%
No	16.2%	11.6%	15.8%	14.1%

- Go over as a team including Devs
- Experimentation via Optimizely
- Use to determine priorities

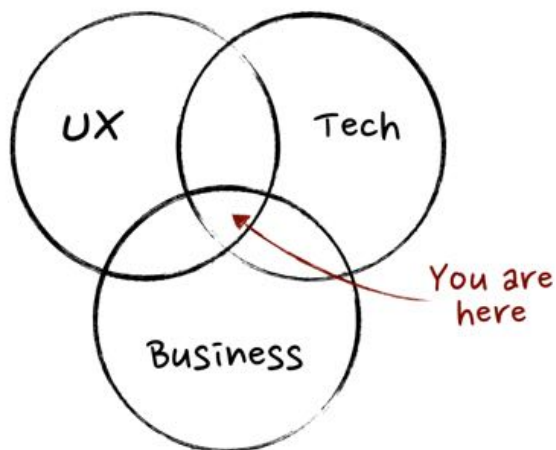
Next day
changes to
Prod!

Customer
Feedback

Foster Team
Experimentation

Support
Collaboration
Among Teams

Team Transparency & Collaboration



UX works directly with Devs,
and Devs directly with UX



Everyone has full rights in non-prod
Risks are shared



Opportunities for
Recognition

**Foster Team
Experimentation**

**Support
Collaboration
Among Teams**

**Support
Generative
Culture**

**Support
Transformation
Leadership**



how to measure software delivery performance?



What's Left?

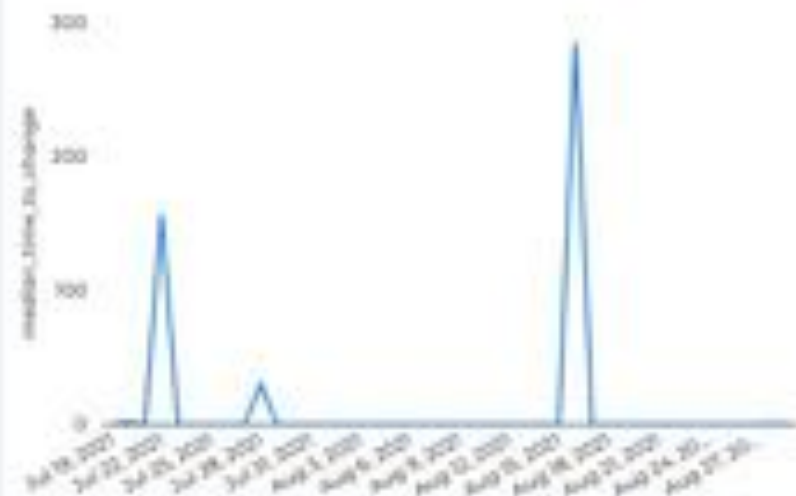
Stability! We're unbalanced towards speed

- Shift left on security
- Test data management
- Proactive failure notification
- Monitoring systems to inform business decisions

Results

Q2
2021

Daily Median Lead Time to Change



The median amount of time for a commit to be deployed into production.

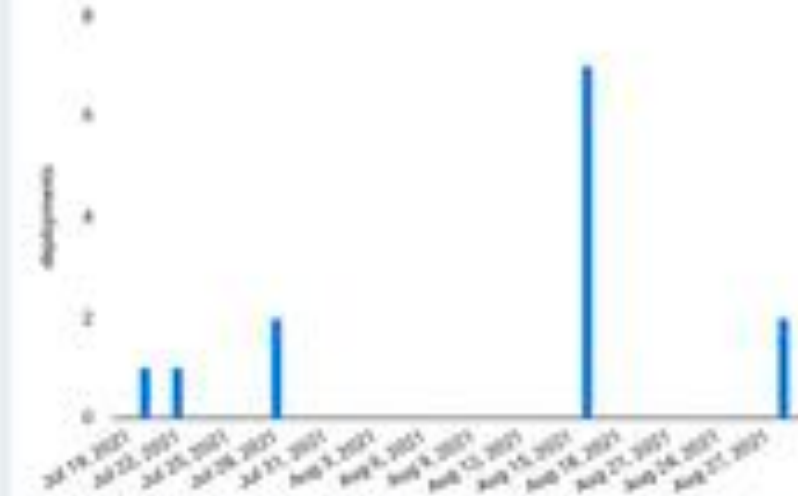
Median Lead Time to Change



Deployment Frequency



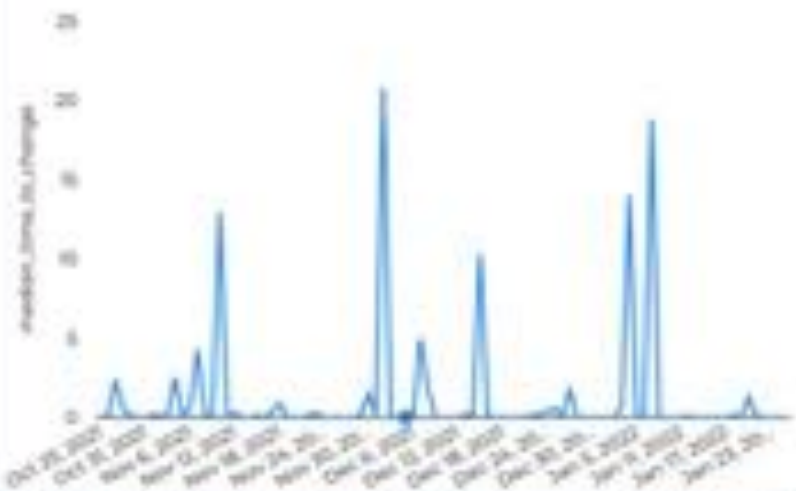
Daily Deployments



The number of deployments per day

Q4
2021

Daily Median Lead Time to Change



The median amount of time for a commit to be deployed into production.

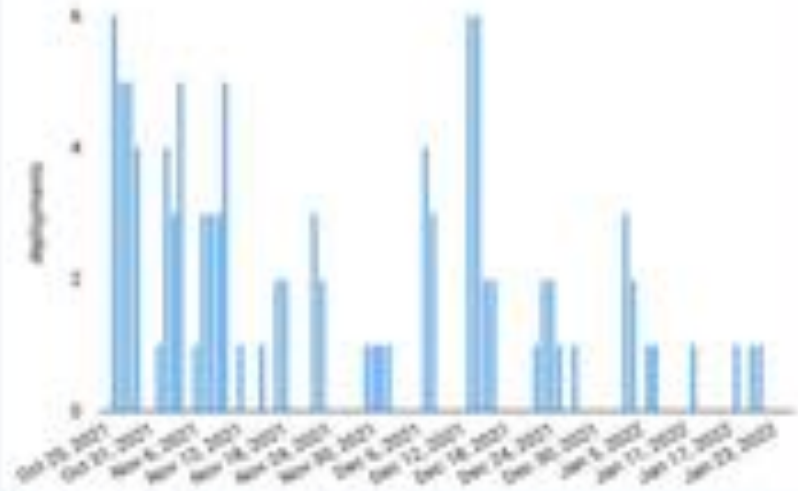
Median Lead Time to Change



Deployment Frequency

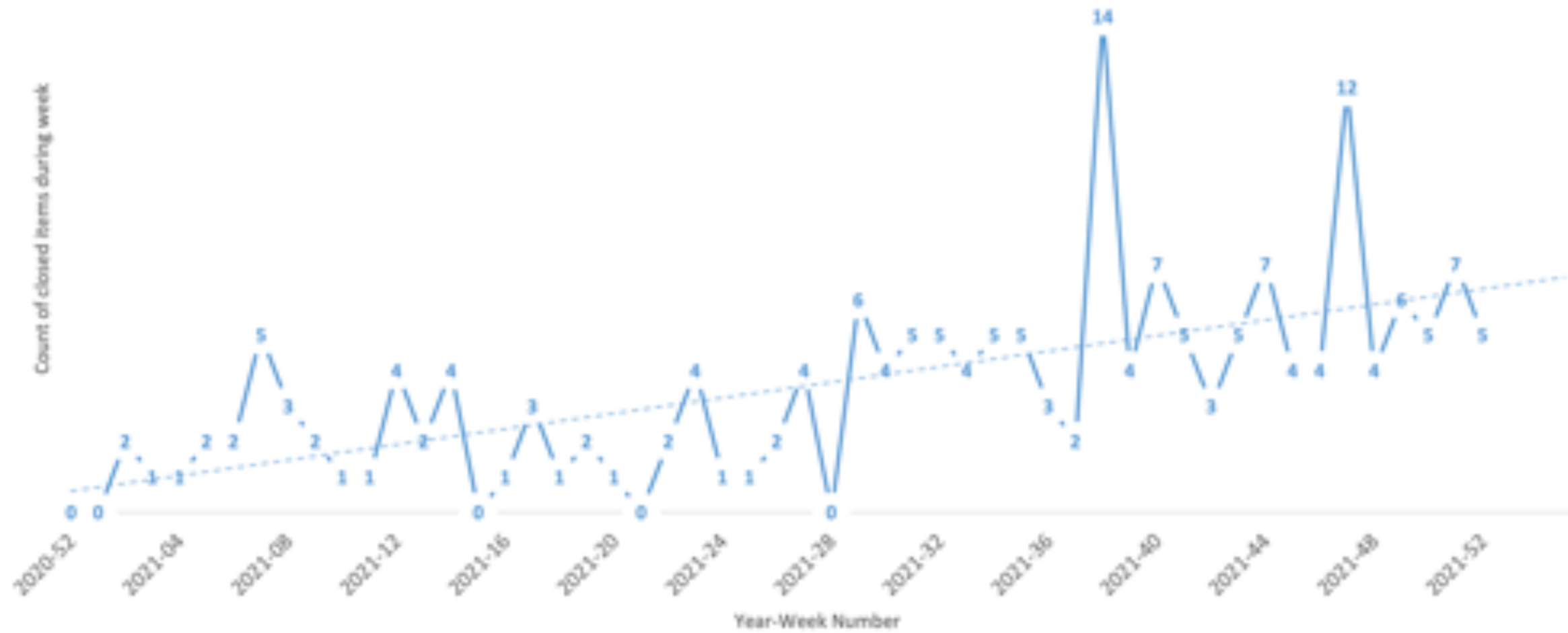


Daily Deployments



The number of deployments per day

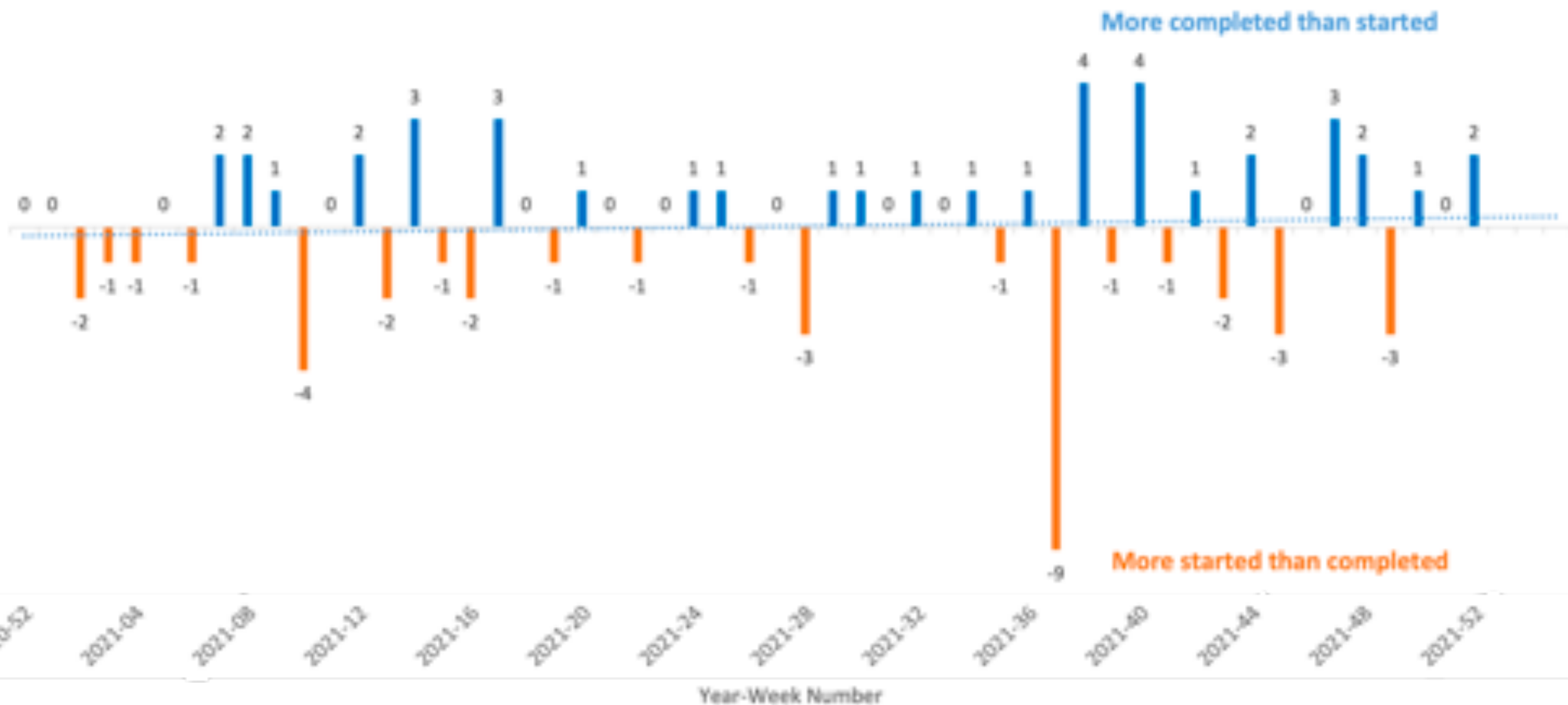
THROUGHPUT HISTORY TREND (COMPLETED ITEMS PER WEEK)



AVERAGE CYCLE TIME PER WEEK



NET FLOW PER WEEK (ITEMS COMPLETED - ITEMS STARTED)

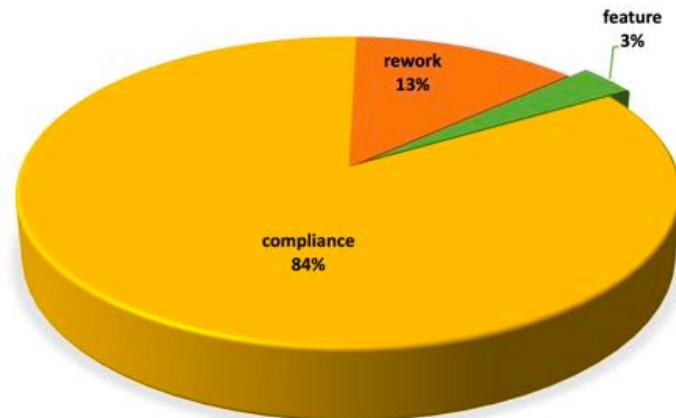


Work Distribution

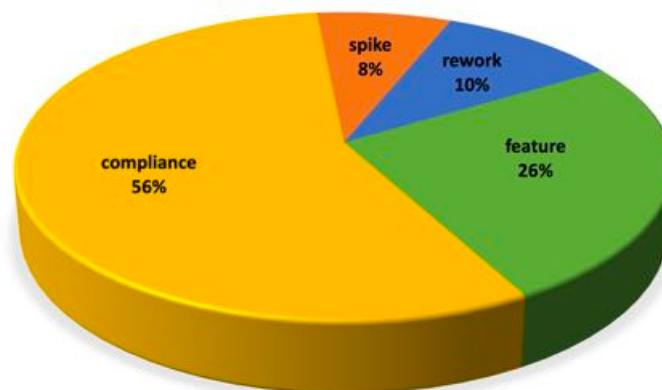
CLASSES OF SERVICE

■ feature
 ■ compliance
 ■ spike
 ■ rework
 ■ incident

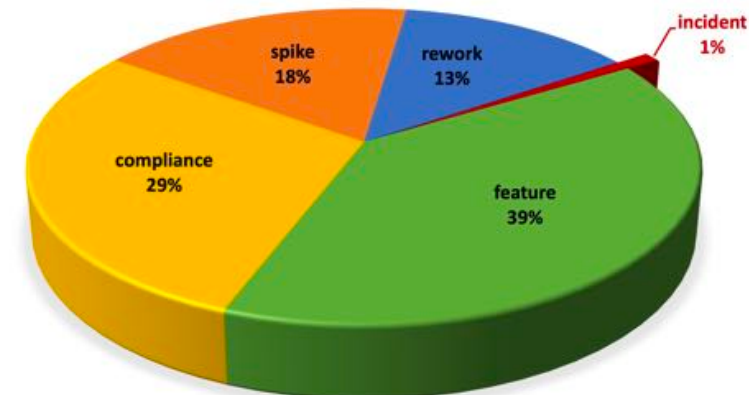
Q2 2021



Q3 2021



Q4 2021



Delivered Features



Mileage Calculator

State-to-State Self-Service

72%
Of All Requests
93%

Helpfulness Score

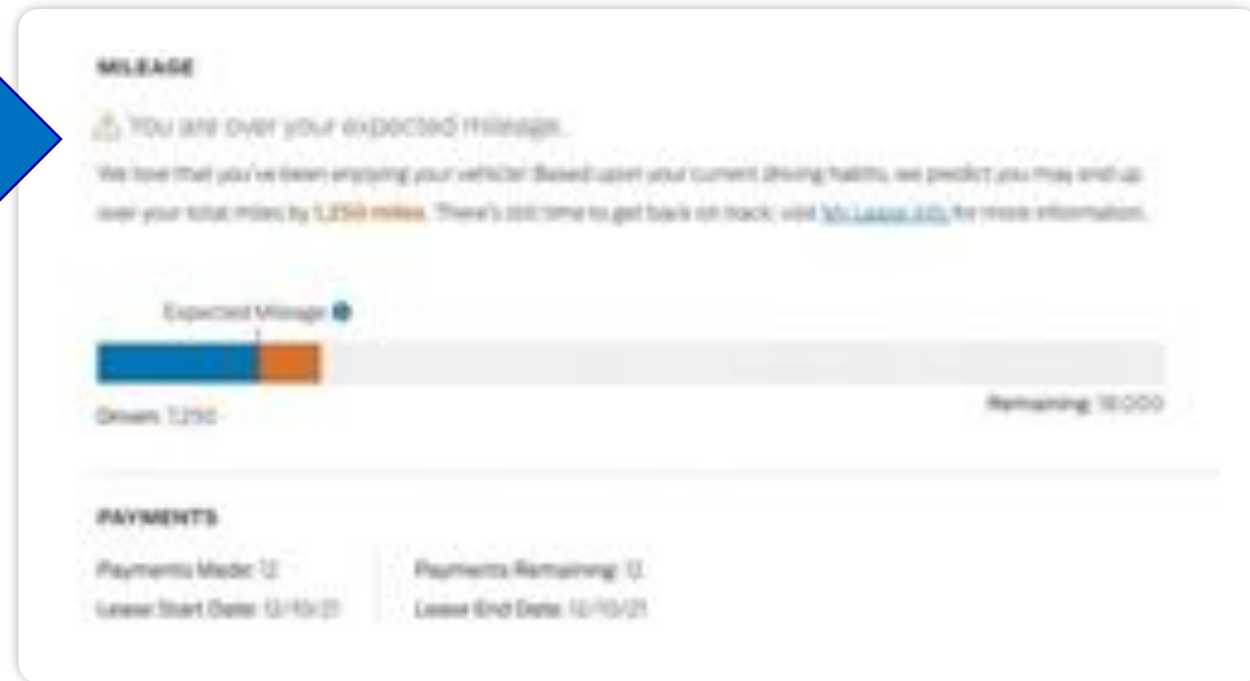
Customer feedback changes deployed to Prod the next day!

This was so much easier than trying to get in contact with an actual person.

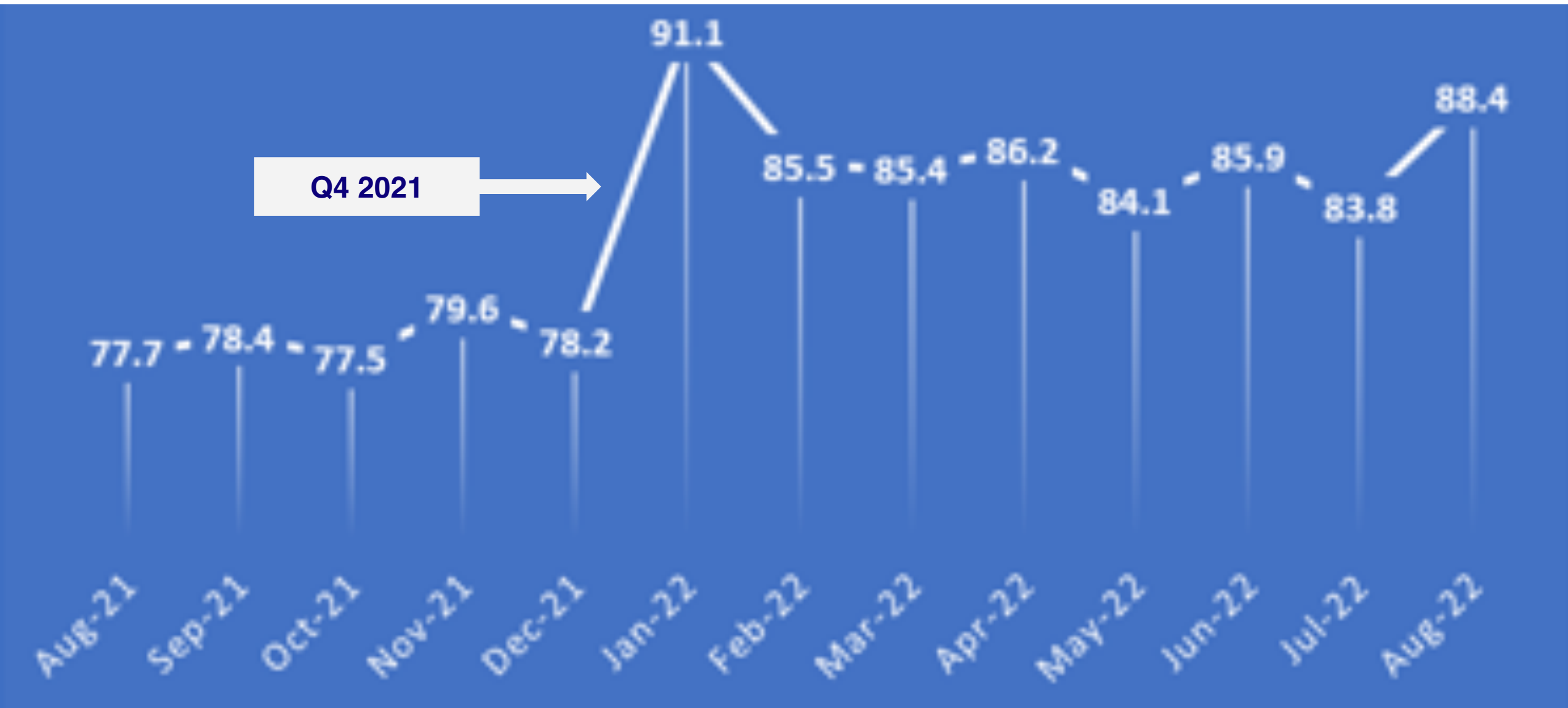
The App devs are killing it-of all the account management apps I use, this one is my favorite.

Extremely helpful when moving to a new state. Even the DMV was impressed with the ability..

What Customers Have Been Saying



Personal Lifetime Communications Helpfulness Score



Not Just Data!



Thanks!

Eileen



Jeremy



| Ford Credit

References

You can't improve what you don't measure:

<https://www.youtube.com/watch?v=sW1F2DHE0TE&t=27s>

Accelerate Book:

<https://itrevolution.com/accelerate-book/>

DORA Four Keys Project:

<https://cloud.google.com/blog/products/devops-sre/using-the-four-keys-to-measure-your-devops-performance>

<https://github.com/GoogleCloudPlatform/fourkeys>

DORA Capabilities:

<https://www.devops-research.com/research.html#capabilities>

<https://itrevolution.com/24-key-capabilities-to-drive-improvement-in-software-delivery/>

Why focus on deployment frequency over stability:

<https://humanitec.com/blog/deployment-frequency-key-metric-in-devops>

Team Dashboard Tool (graphs for throughput and cycle time)

<https://www.focusedobjective.com/pages/free-spreadsheets-and-tools>

Cockpit resource management:

<https://itrevolution.com/the-idealcast-episode-17/>

Westrum Typology:

<https://itrevolution.com/westrums-organizational-model-in-tech-orgs/>

NUMMI Story:

<https://www.thisamericanlife.org/561/nummi-2015>

Transformational Leadership:

<https://services.google.com/fh/files/misc/state-of-devops-2017.pdf>

Project To Product Book:

<https://projecttoproduct.org/>

Mob Programming:

<https://www.agilealliance.org/resources/experience-reports/mob-programming-agile2014/>

Continuous Delivery:

Continuous Delivery: Reliable Software Releases through Build, Test, and Deployment Automation by Jez Humble and David Farley

Test-Driven Development:

Test-Driven Development by Example by Kent Beck

Daily Reflections:

Nicole Forsgren - <https://github.blog/2021-05-25-octoverse-spotlight-good-day-project/>