#DATADRIVENDEVOPS

"Without data you are just another person with an opinion"

W. Edwards Deming

SHOWNOTES

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COBBLER'S
CHILDREN HAVE
NO SHOES

POLL TIME!


How many of you are software engineers?


How many of you are optimists?


How many of you are self-confident in their work?

DUNNING-KRUGER EFFECT A.K.A. ”OPTIMISM”

> People suffer from illusory superiority, mistakenly assessing their cognitive ability as greater than it is.

Wikipedia

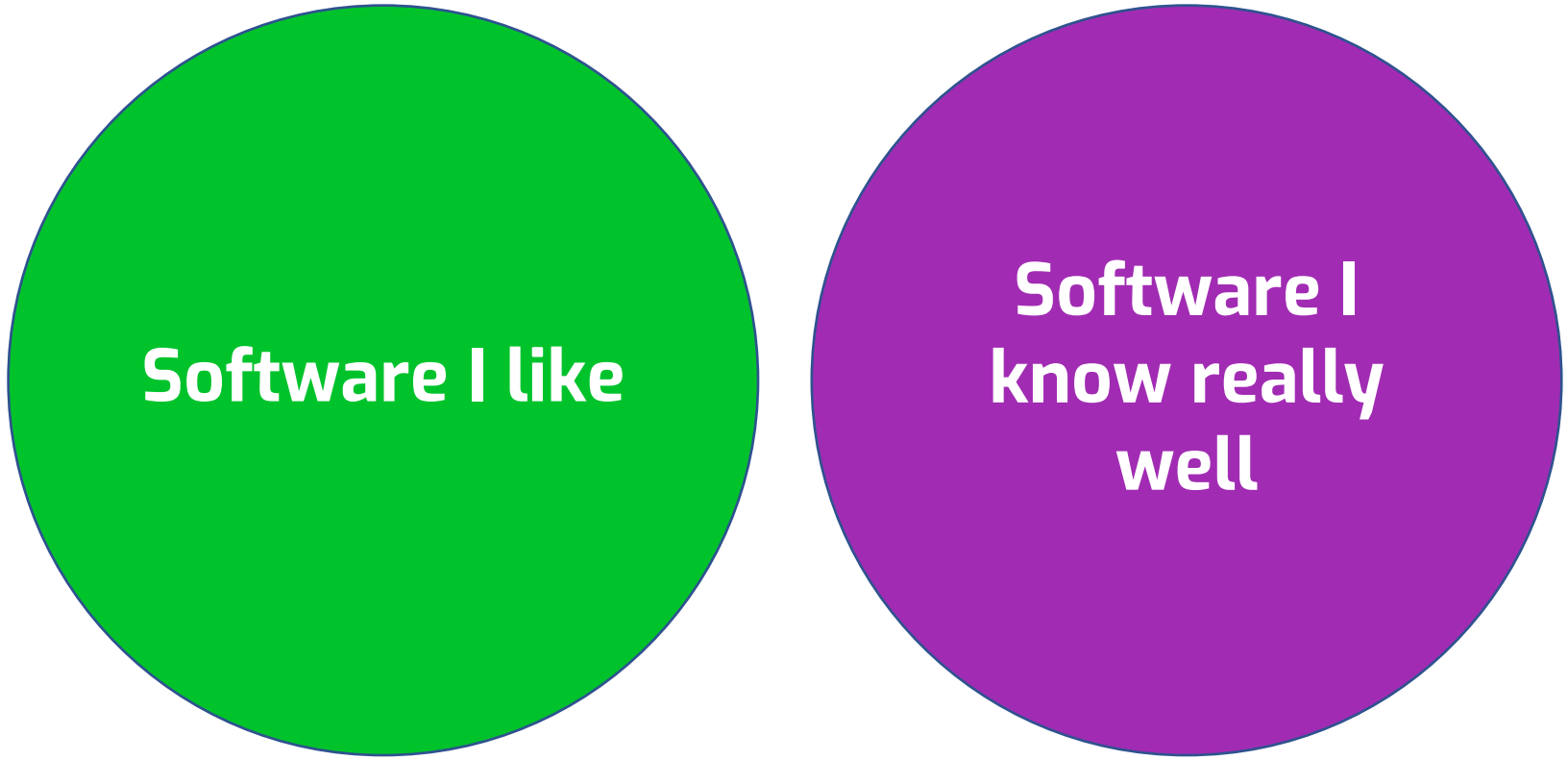
SECOND-SYSTEM EFFECT A.K.A. “SELF-CONFIDENCE”

> “ The tendency of small, elegant, and successful systems, to be succeeded by over-engineered, bloated systems, due to inflated expectations and overconfidence.

The Mythical Man-Month

THE CONSEQUENCES

DISILLUSION



OVERCONFIDENCE

> Every software is 80% ready 80% of the time

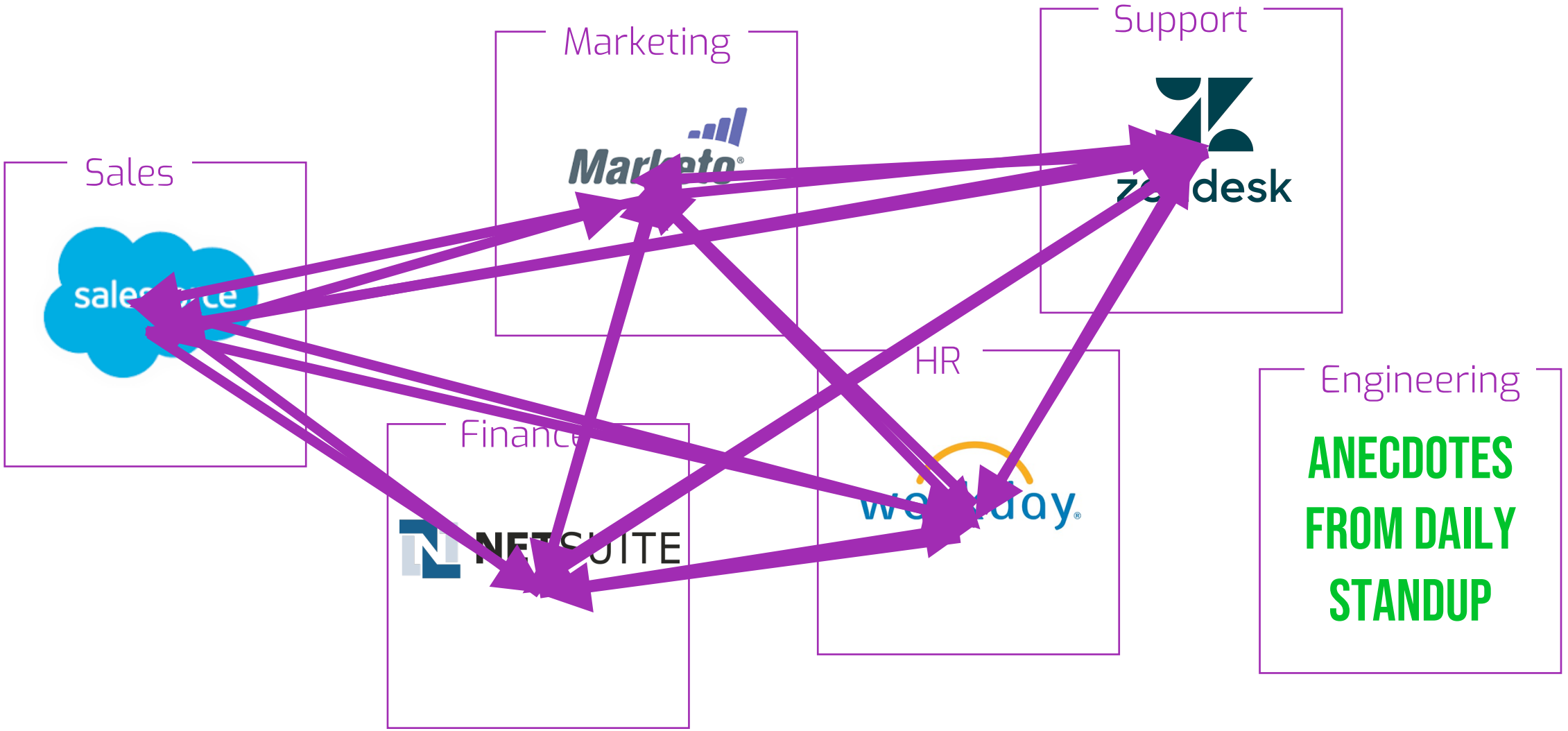
Every developer, ever

HARD TO GIVE UP




BRONX

HOW DEPARTMENTS MEASURE




cHRome!
Firefox!
GLUE

BARUCH SADOGURSKY

CHIEF STICKER OFFICER

(ALSO, HEAD OF DEVELOPER RELATIONS)

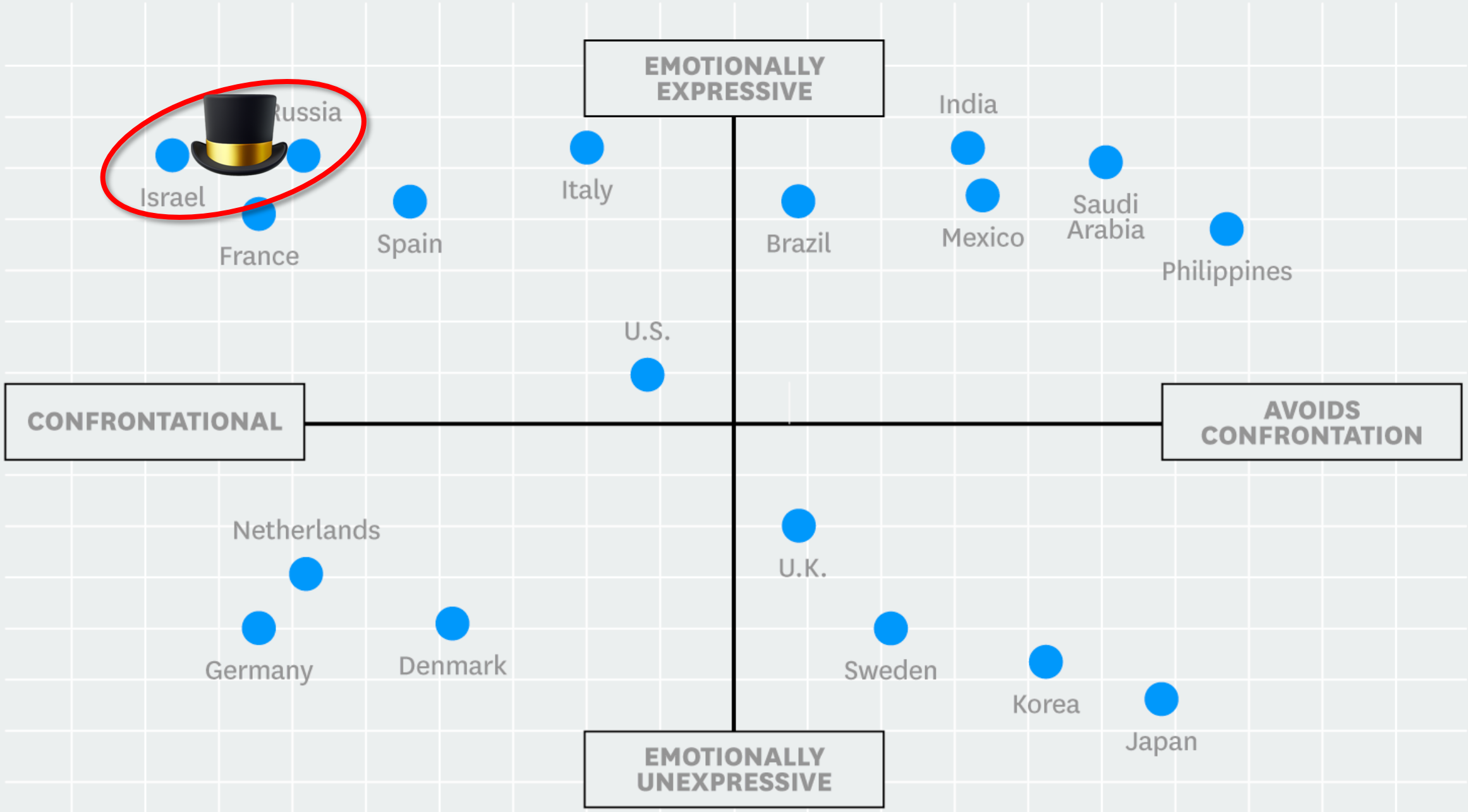

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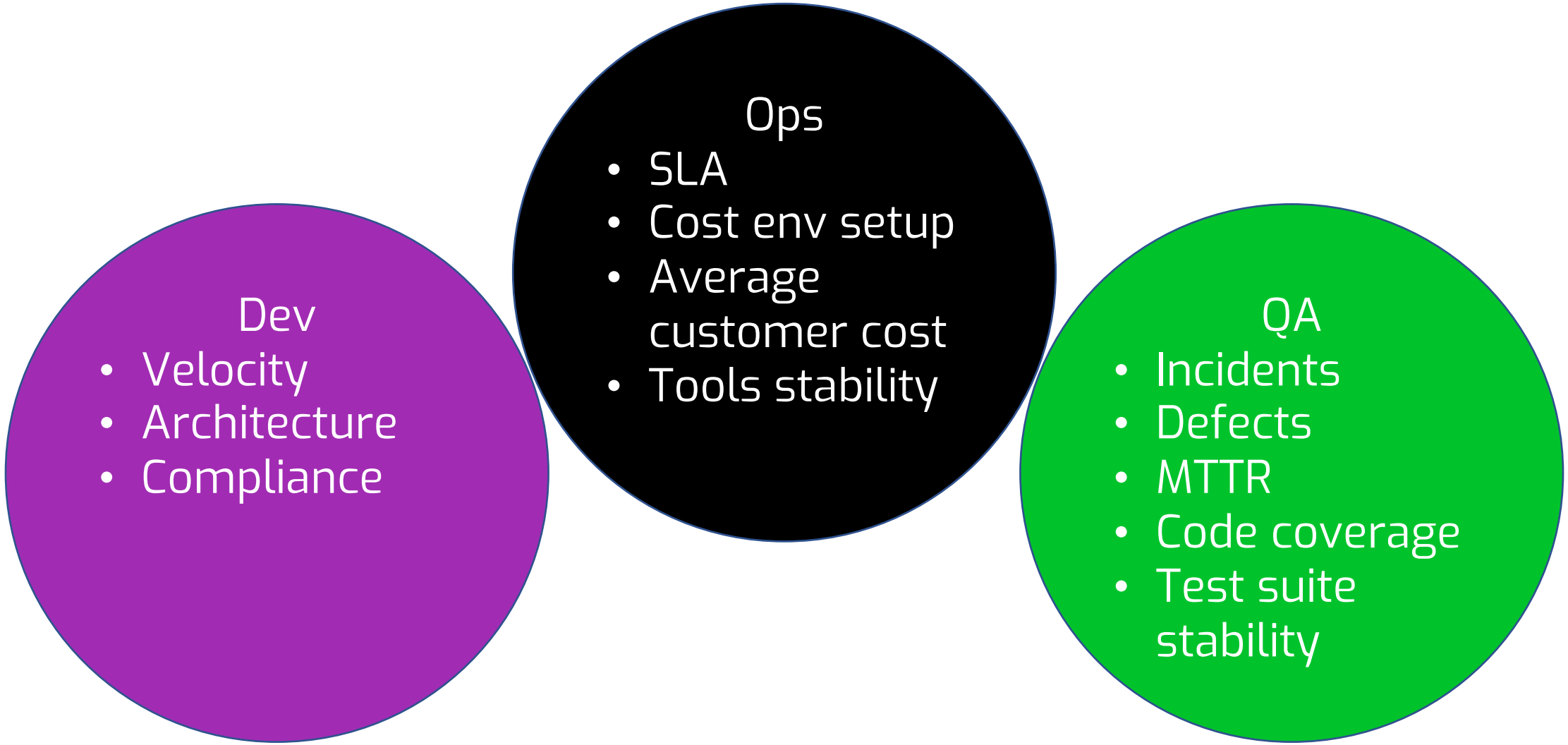
JFrog





@ErinMeyerINSEAD's "Culture Map"

ENGINEERING METRICS IN PRE-DEVOPS ERA



DEVOPS!



VELOCITY TO AGILE IS LIKE ? TO DEVOPS...



VELOCITY TO AGILE IS LIKE FLOW EFFICIENCY TO DEVOPS...



VERY MUCH ALIKE!

METRIC	EASILY UNDERSTANDABLE	UNITY	
Flow Efficiency	✓	✓	
Velocity	✓	✓	

POLL TIME!

- Who knows what velocity is?
- Who knows what burndown chart is?
- Who has a burndown chart?
- Who looks at the burndown chart?
- Who trusts the burndown chart?
- Who knows what to do if it doesn't look right?

WHAT'S THE PROBLEM?



TRUE FOR BOTH!

METRIC	EASILY UNDERSTANDABLE	UNITY	ACTIONABLE
Flow Efficiency	✓	✓	✗
Velocity	✓	✓	✗

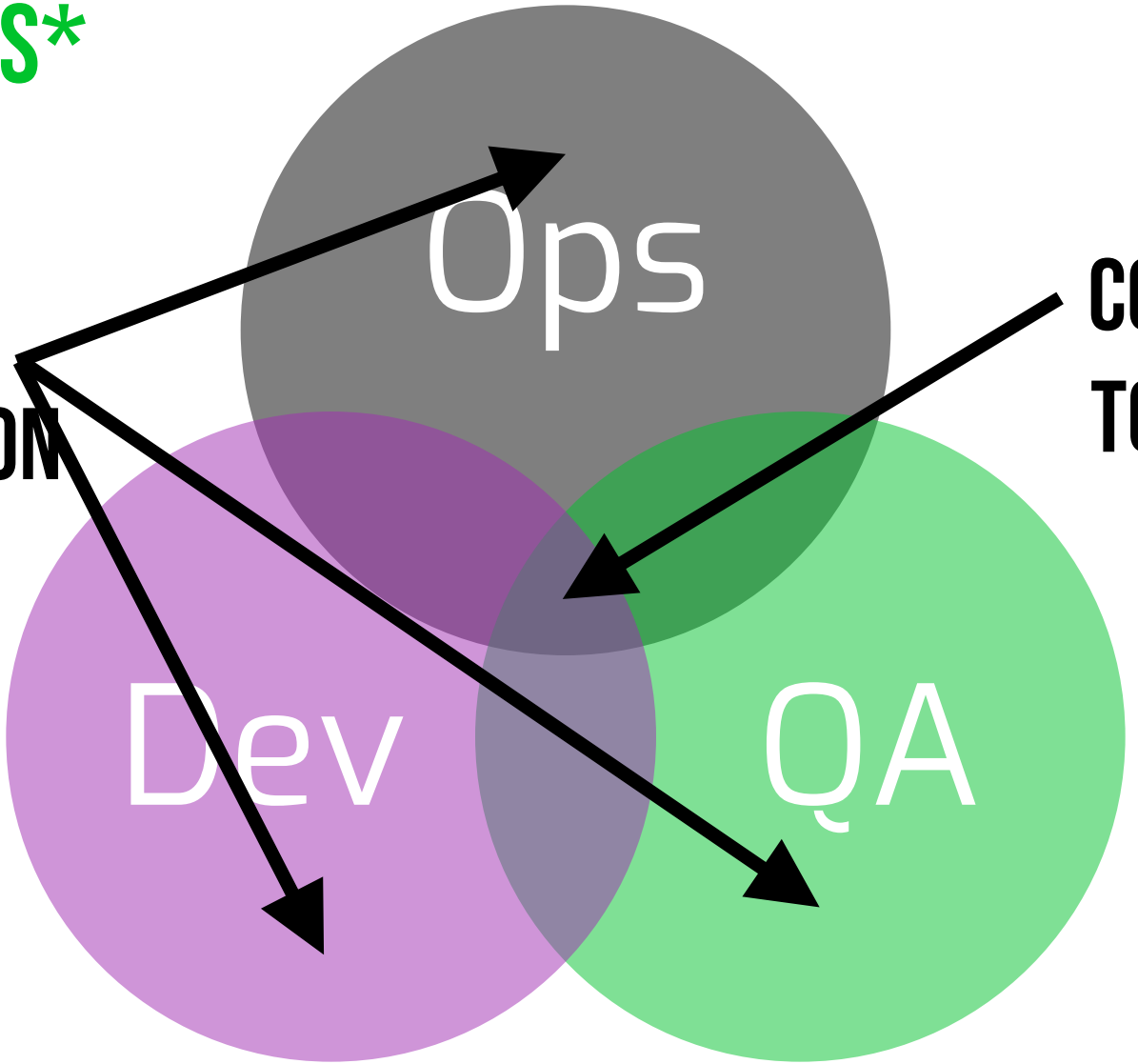
TOO COARSE!



TOO COARSE!



THIS IS DEVOPS*

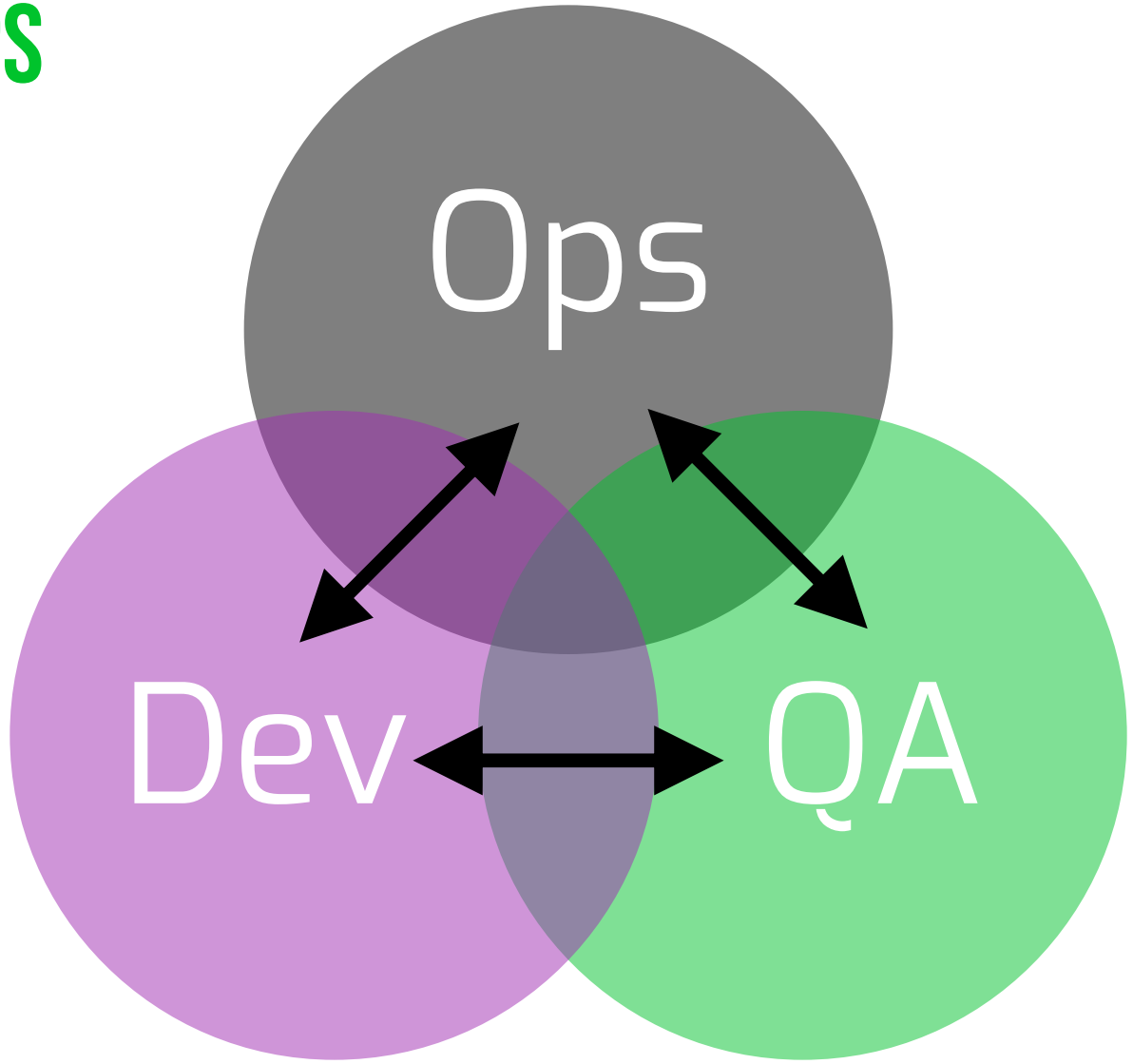


DEEP SPECIALIZATION

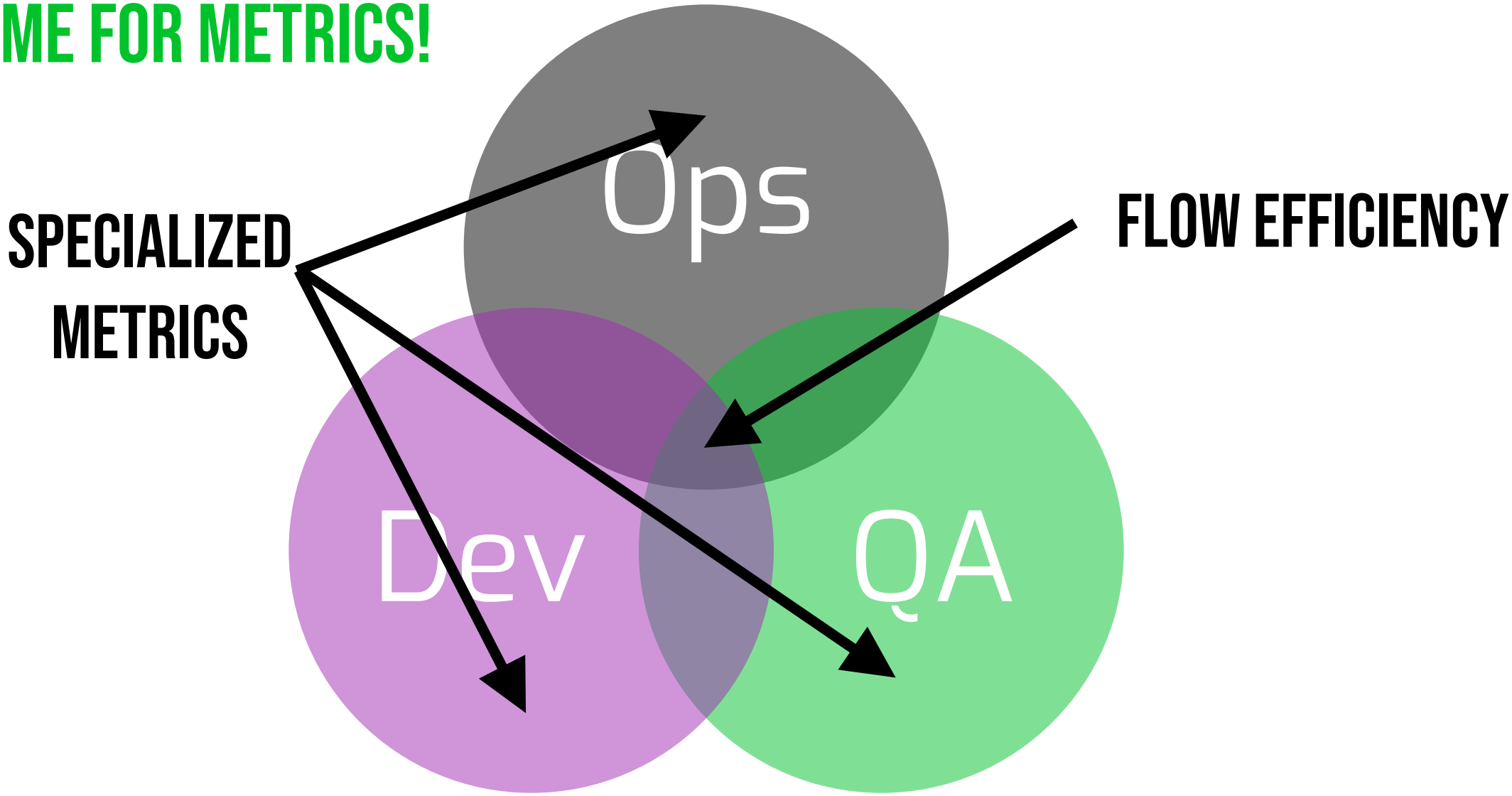
COMMON GOALS, TOOLS, CULTURE

*UNLESS YOU'RE NETFLIX
**YOU'RE NOT

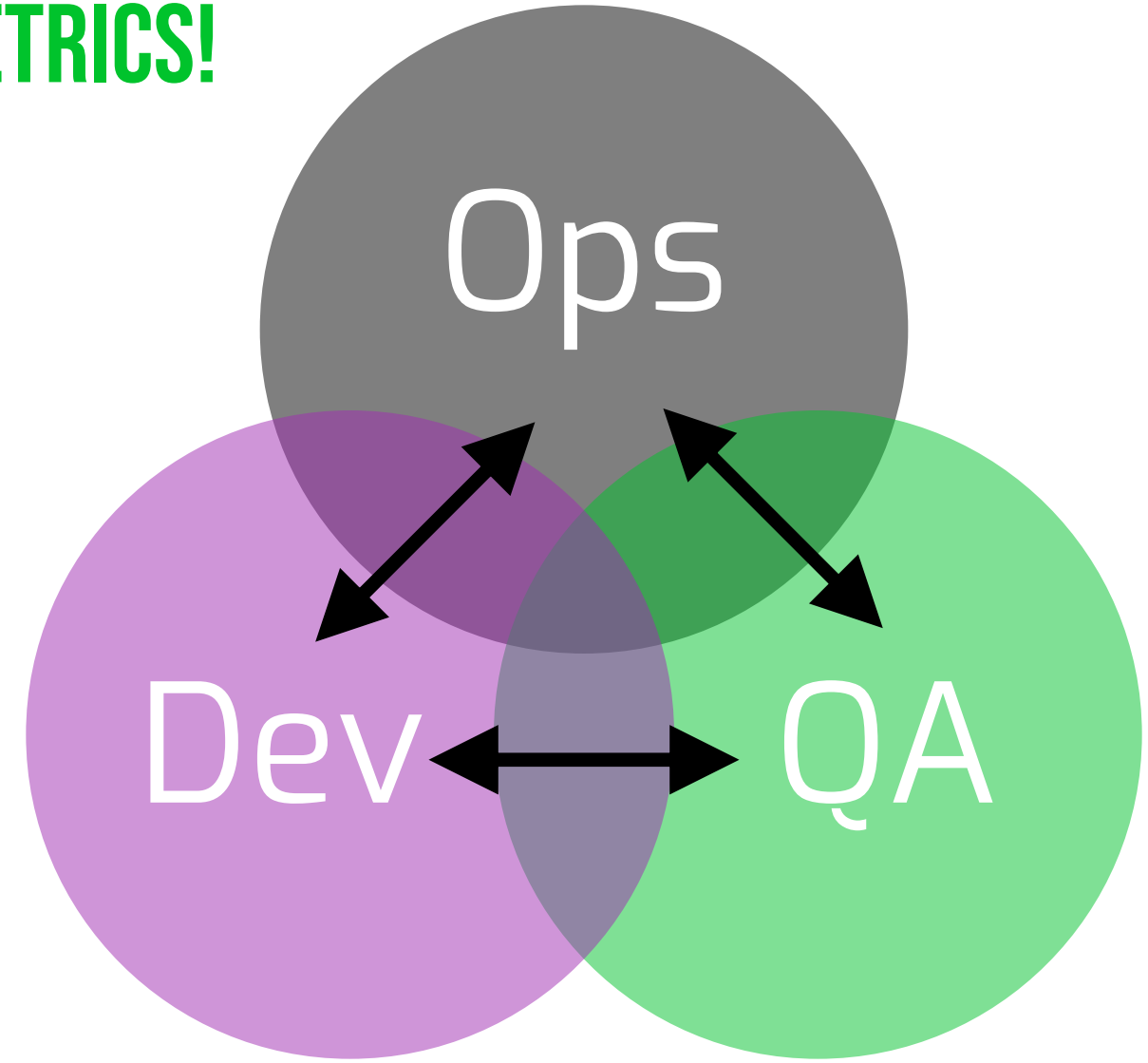
THIS IS DEVOPS



SAME FOR METRICS!

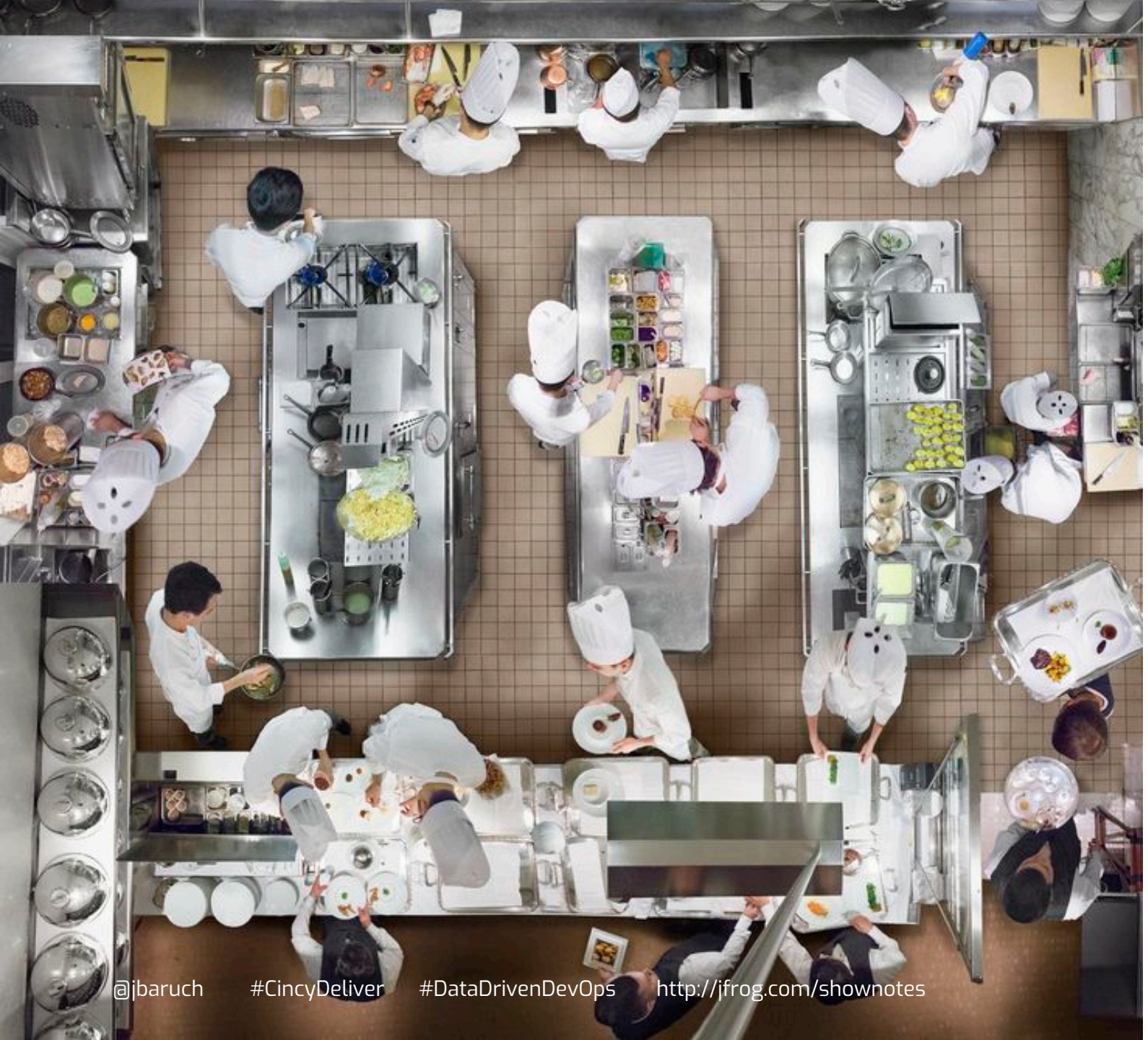


SAME FOR METRICS!



HOW DO METRICS COLLABORATE?

AFFECTED \ INFLUENCED	DEV	OPS	QA
DEV		• Time to build • Release pipelines stability • Artifact replication topology	• False reopen count • QA coverage
OPS	• Avg cost of customer		• Smoke tests quality
QA	• Test suite stability • Incoming defect velocity • Test execution time	• Time to create new QA lab	



COOKING WITH METRICS

METRICS CATEGORIZATION



Fresh,
125 m

Leafy vegetables
Cooked: 125 mL (½ cup)
Raw: 250 mL (1 cup)

Fresh, frozen or canned fruits
1 fruit or 125 mL (½ cup)

100% Juice
125 mL (½ cup)



Bread
1 slice (35g)

g)

Flat breads
½ pita or ½ tortilla (35 g)

Cooked rice, bulgur or quinoa
125 mL (½ cup)

Cereal
Cold: 30 g
Hot: 175 mL (¾ cup)

Cooked pasta or couscous
125 mL (½ cup)



Milk or powdered milk (reconstituted)
250 mL (1 cup)

Canned milk (evaporated)
125 mL (½ cup)

Fortified soy beverage
250 mL (1 cup)

Yogurt
175 g
(¾ cup)

Kefir
175 g
(¾ cup)

Cheese
50 g (1 ¾ oz.)



@jbaruch #CincyDeliver #DataDrivenDevOps
http://jfrog.com/shownotes

WHY?



ROI – IS THIS ACTIVITY IS THE RIGHT THING TO DO?


CONTINUOUS IMPROVEMENT

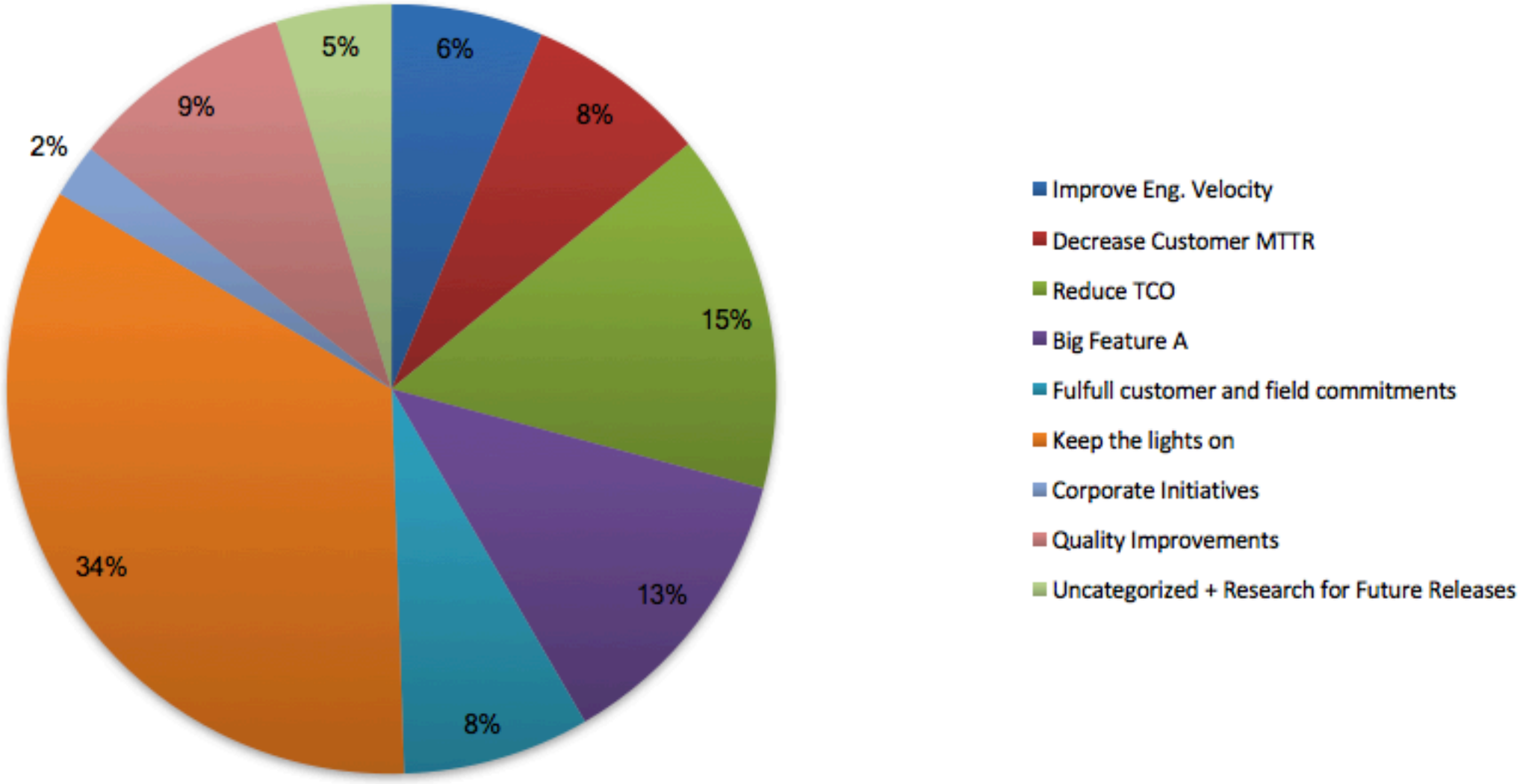

TRUST

SAMPLING



COMPLETE SAMPLE

Engineering effort allocation





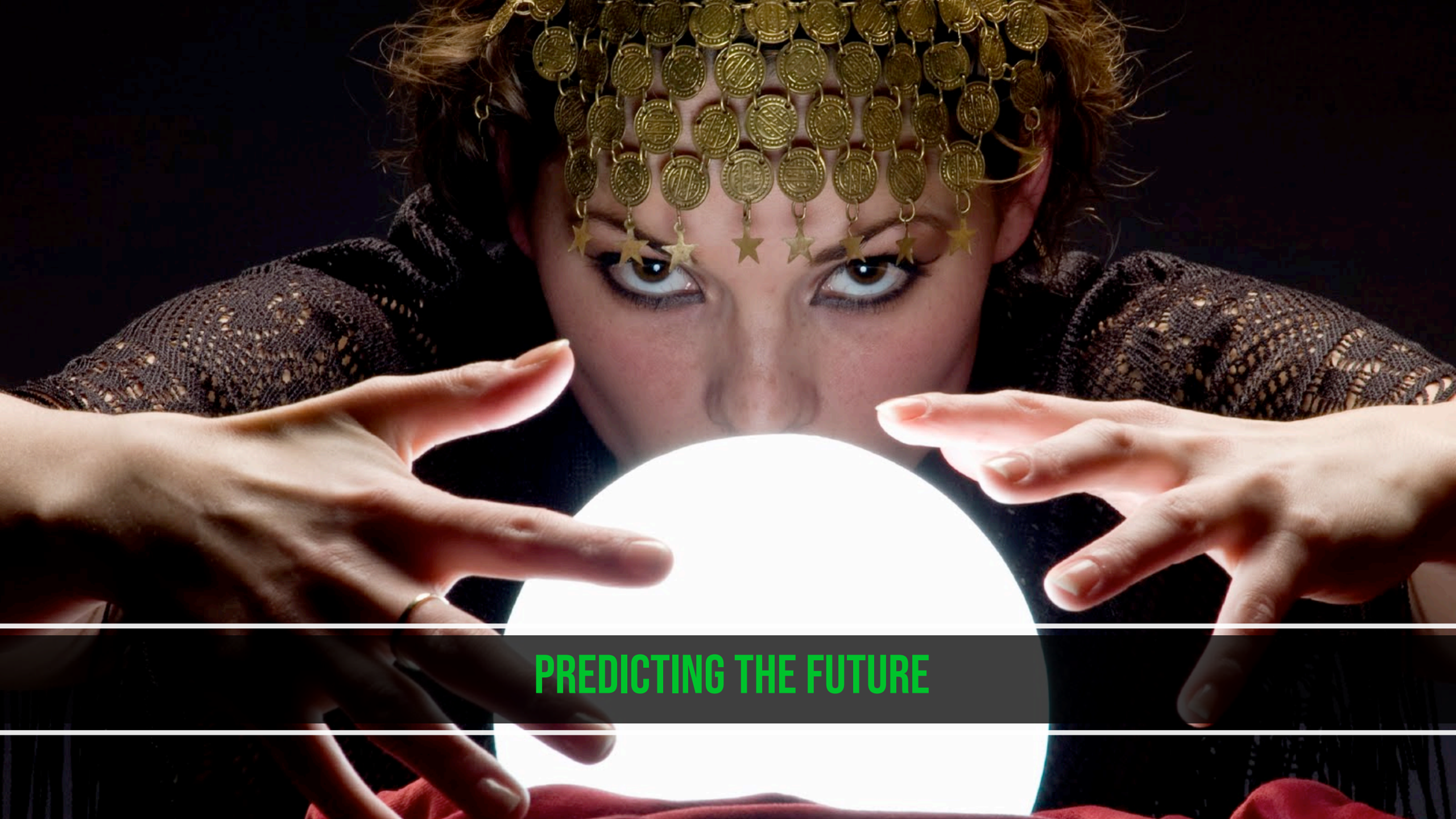
REPRESENTATIVE SAMPLE

HOW EFFECTIVE ARE WE?


Samples are good enough for that


As long as they are representative


Need to be collected over time



PREDICTING THE FUTURE



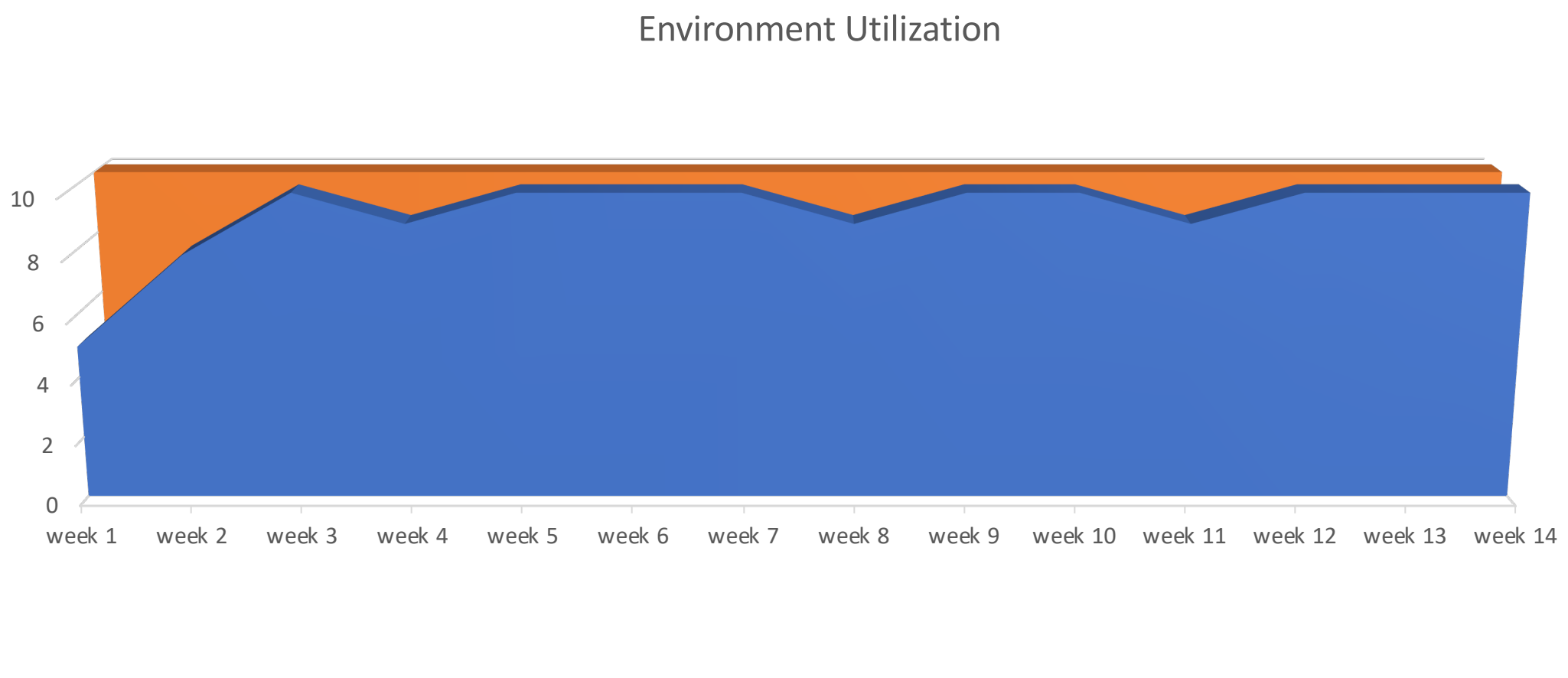
MEET SCRUM TEAM “AVENGERS”

ANECDOTES FROM THE DAILY SCRUM STAND-UPS

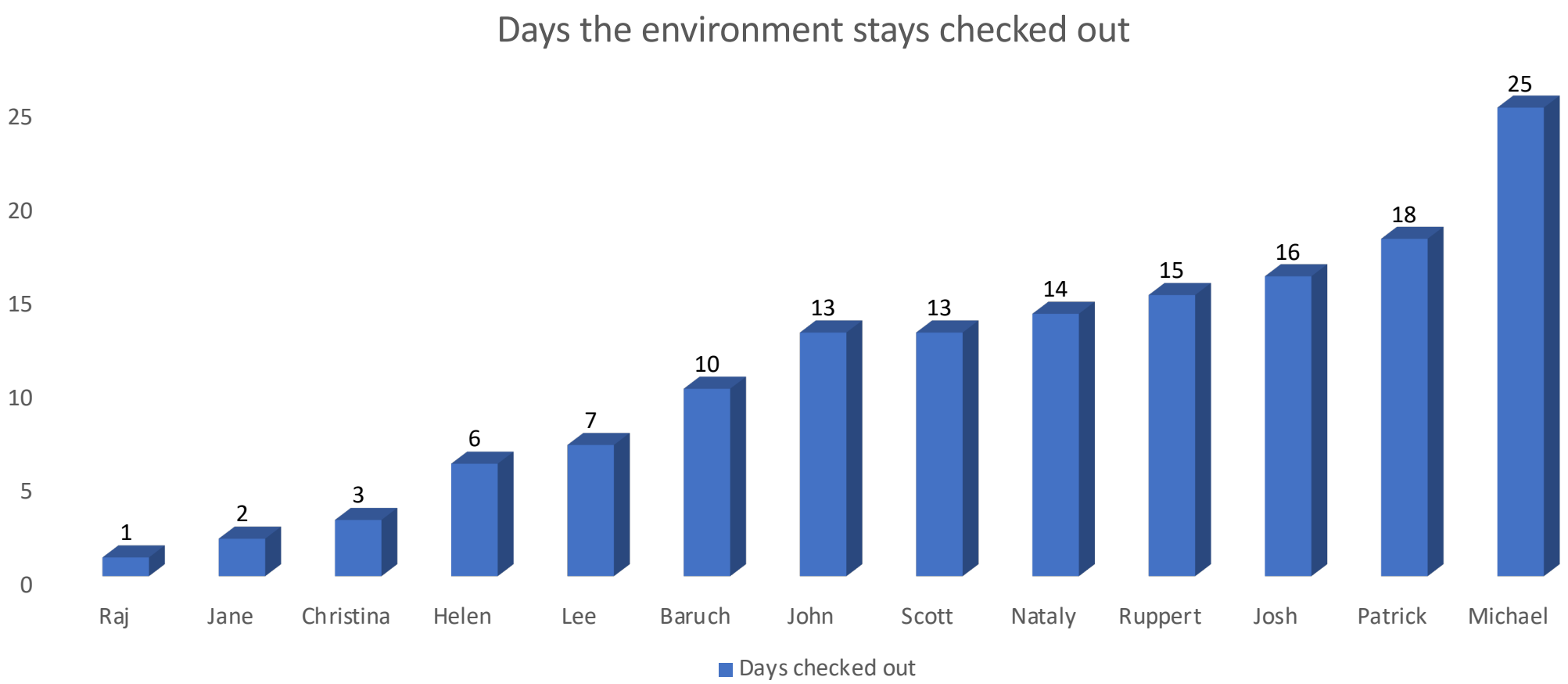
> We never get enough testing environments from Ops, QA is suffering.

Scrum team “Avengers”

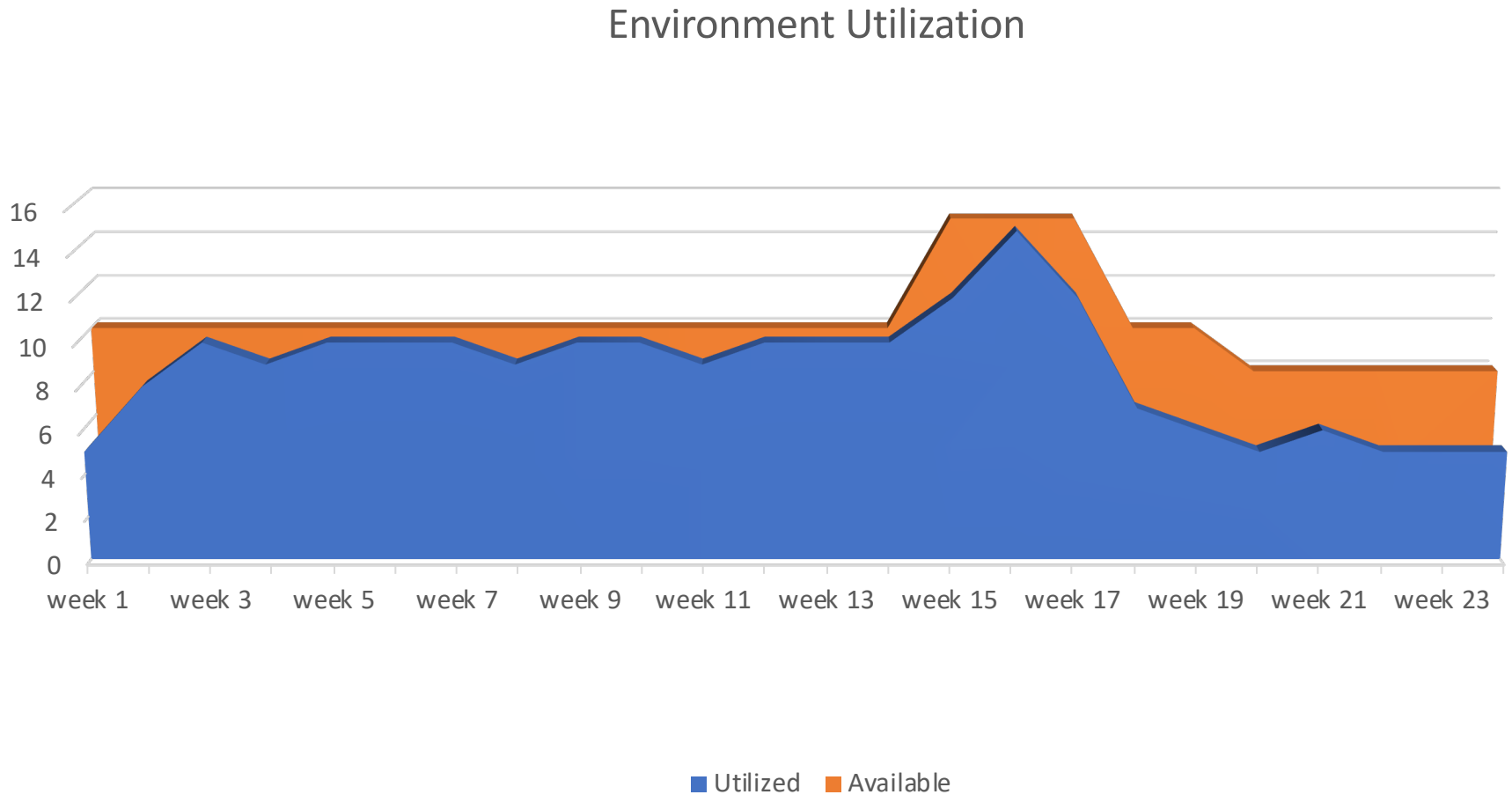
LET'S GATHER SOME DATA!



THAT DOESN'T LOOK GOOD! BUT WHY?



CONTINUOUS IMPROVEMENT

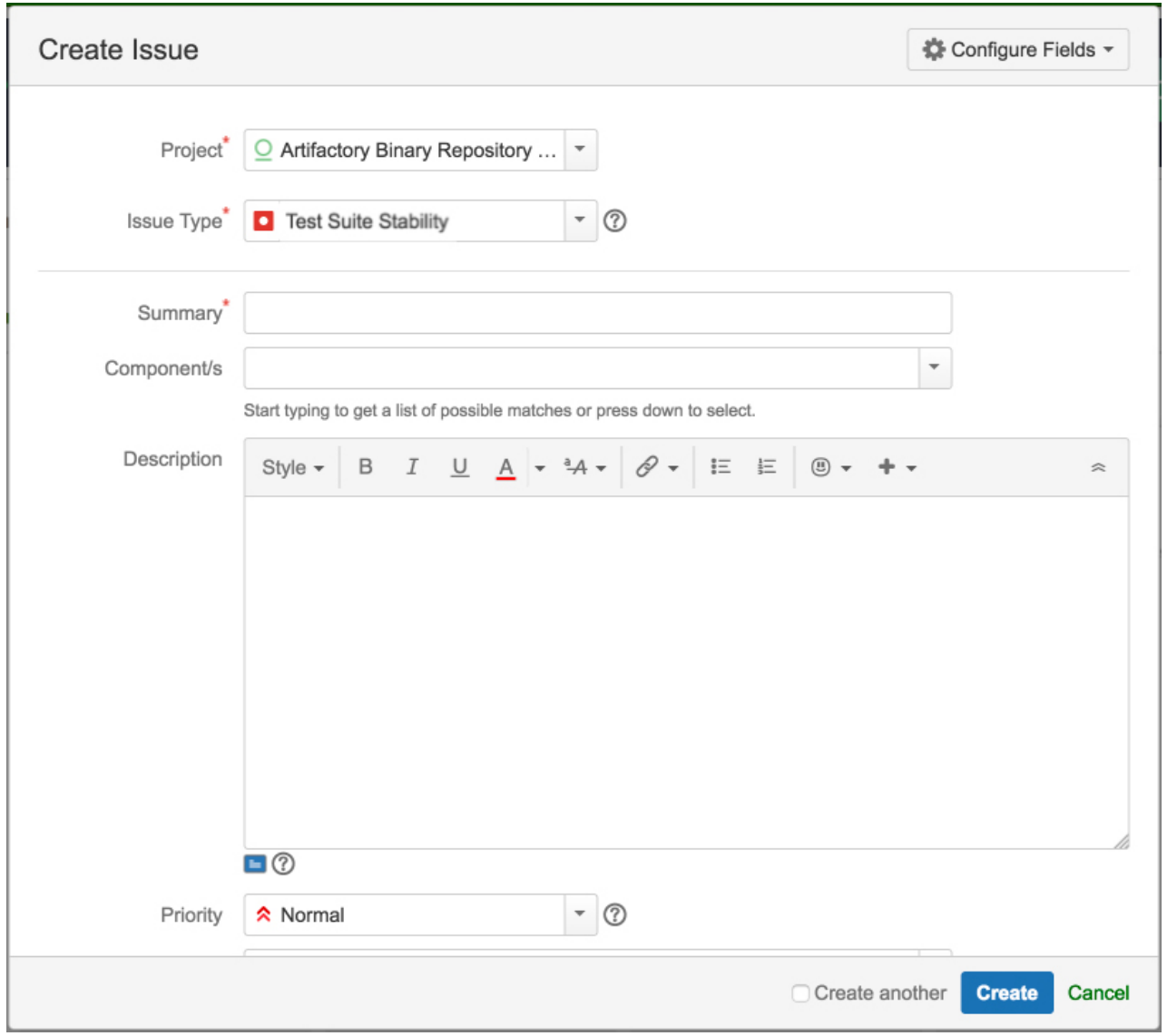


ANECDOTES FROM THE DAILY SCRUM STAND-UPS

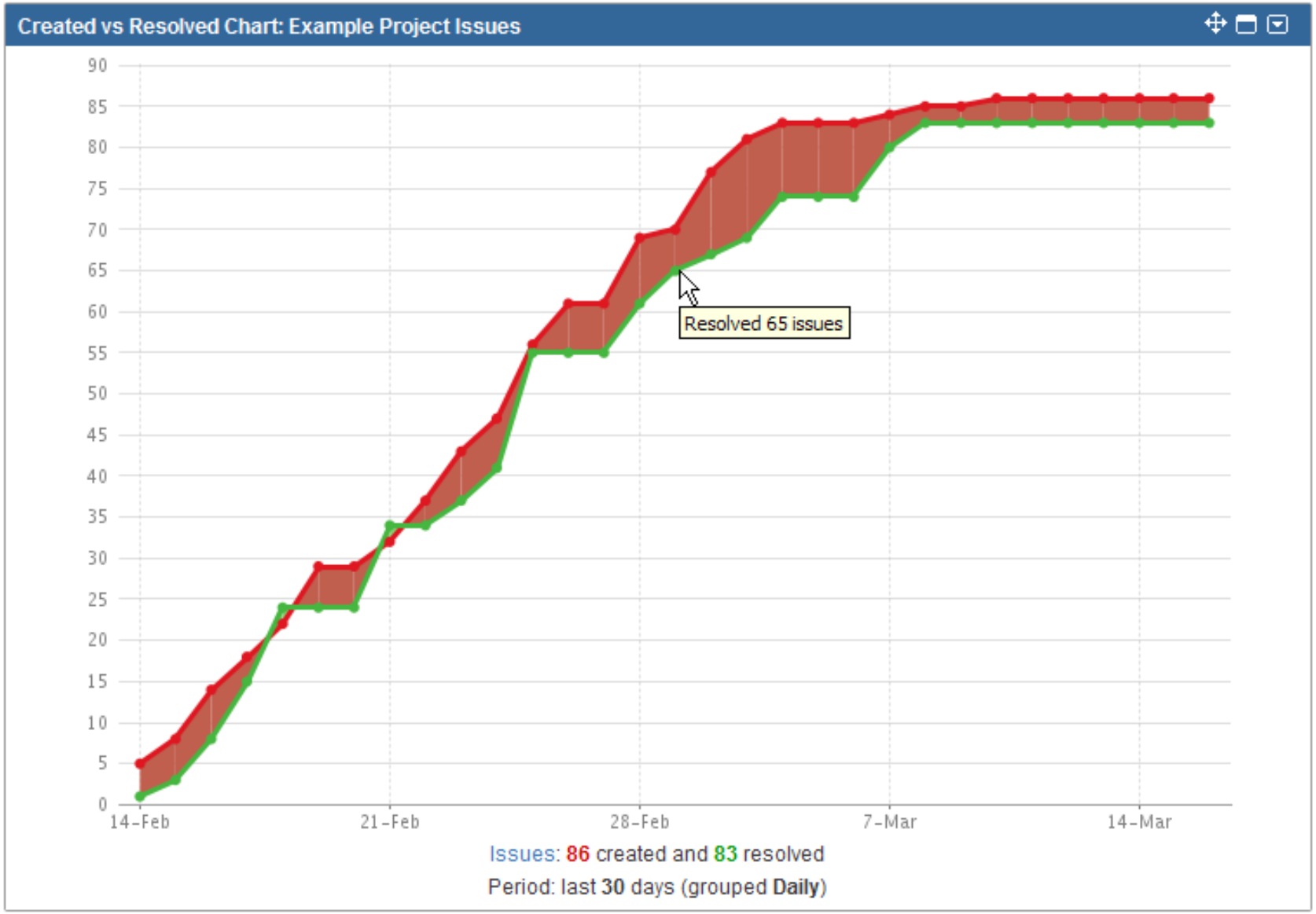
> Tests are failing, because the test suite is not stable, QA makes our builds fail without reason.

Scrum team “Avengers”

LET'S GATHER SOME DATA!



RETURN ON INVESTMENT

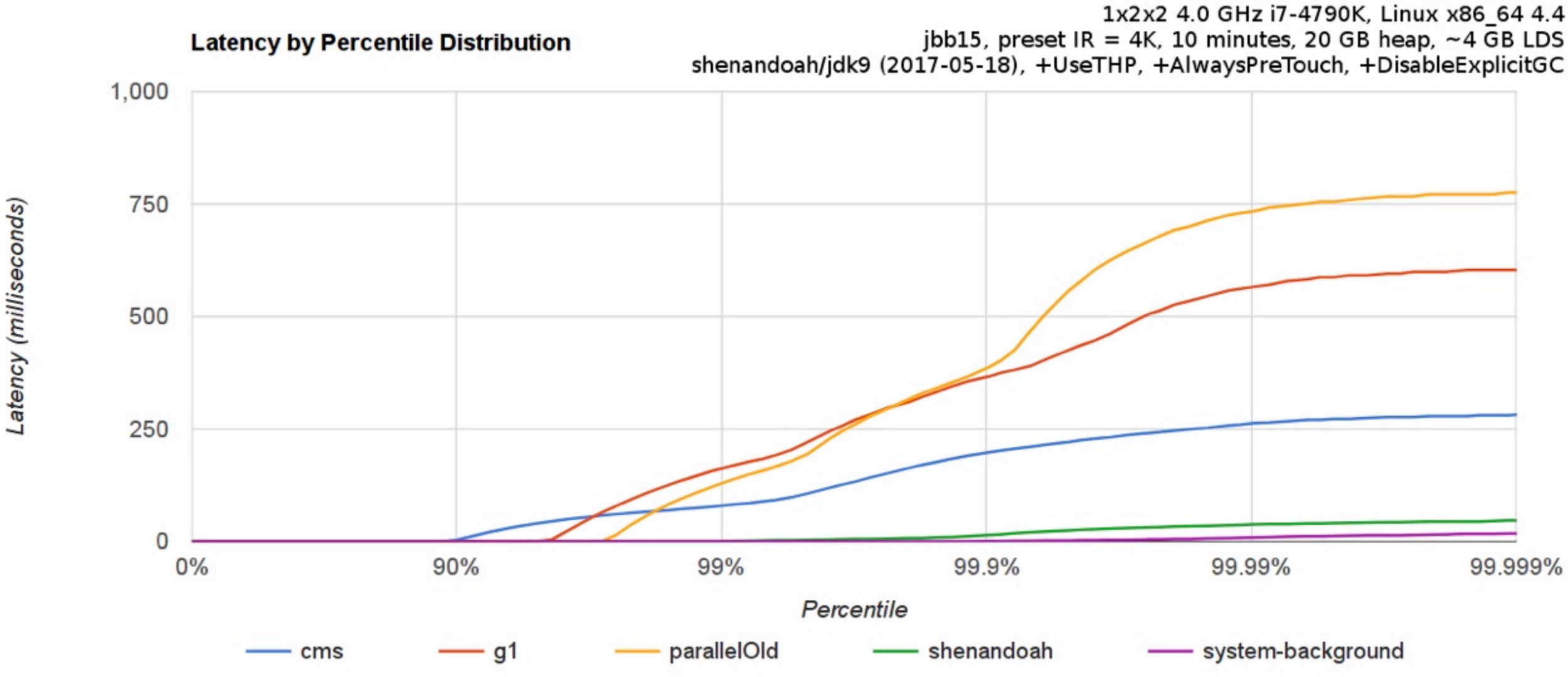


ANECDOTES FROM THE DAILY SCRUM STAND-UPS

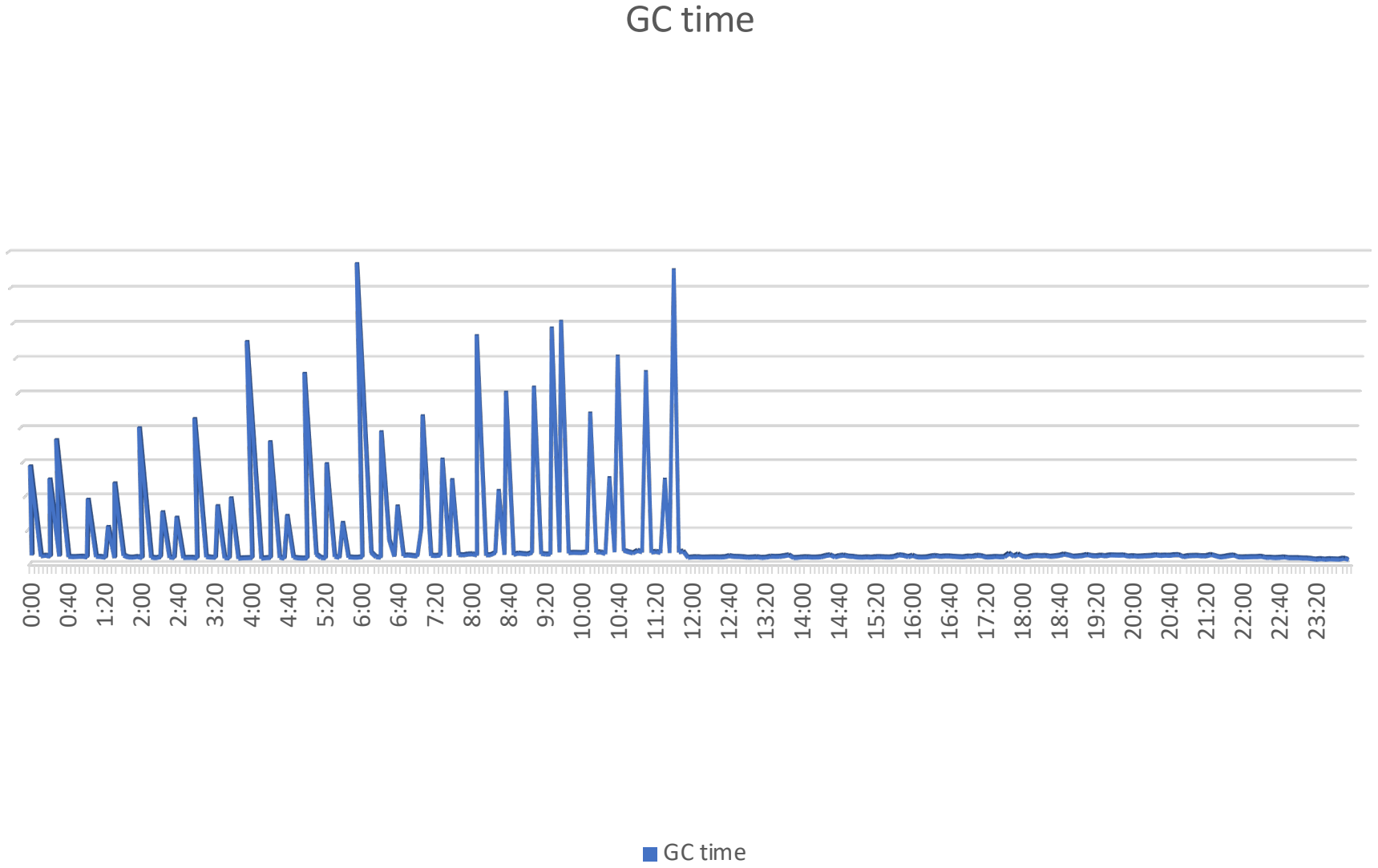
> Those developers want to deploy new GC, its tons of work, without any profit.

Scrum team “Avengers”

LET'S GATHER SOME DATA!



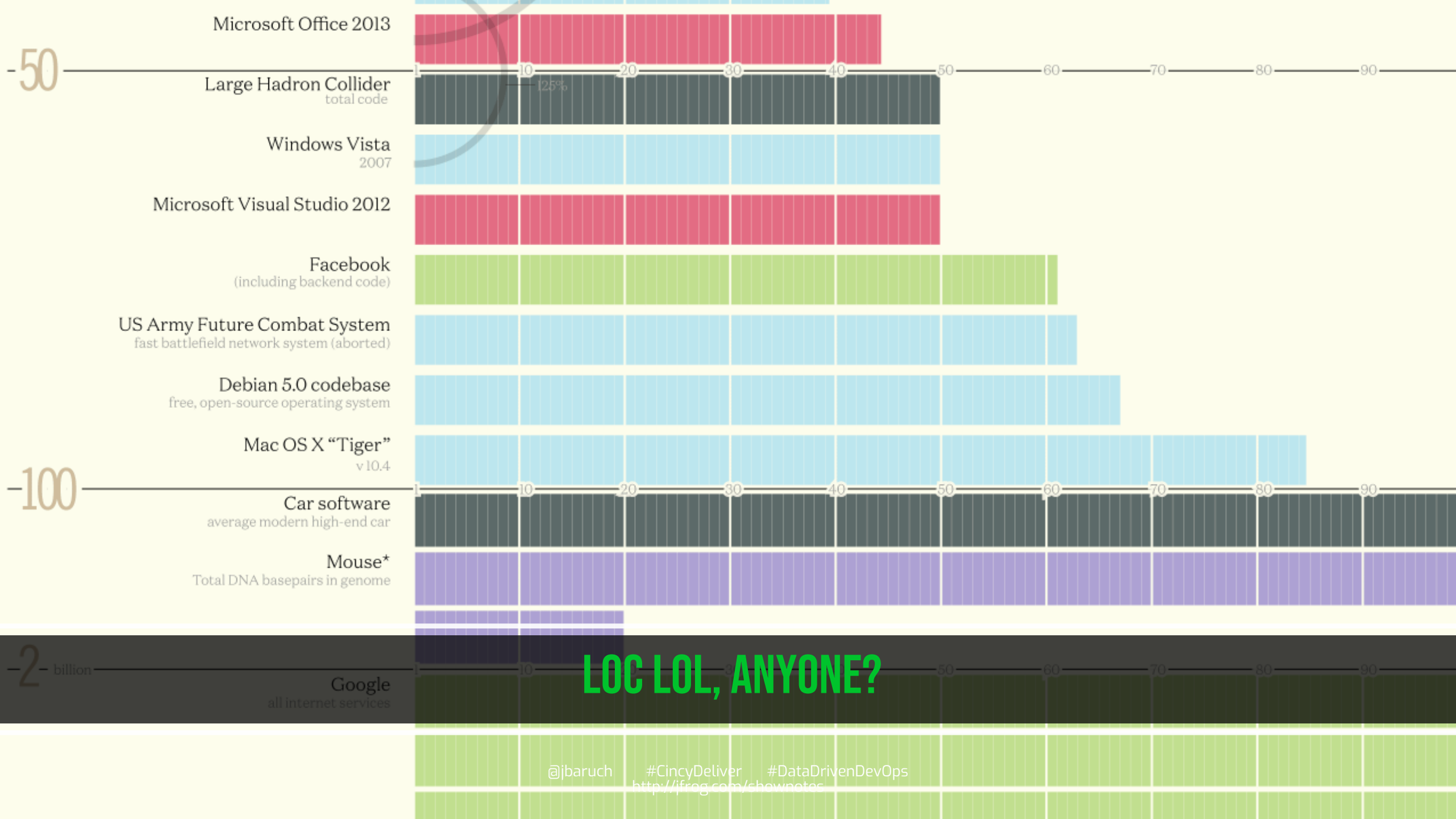
TRUST AND PREDICTABILITY



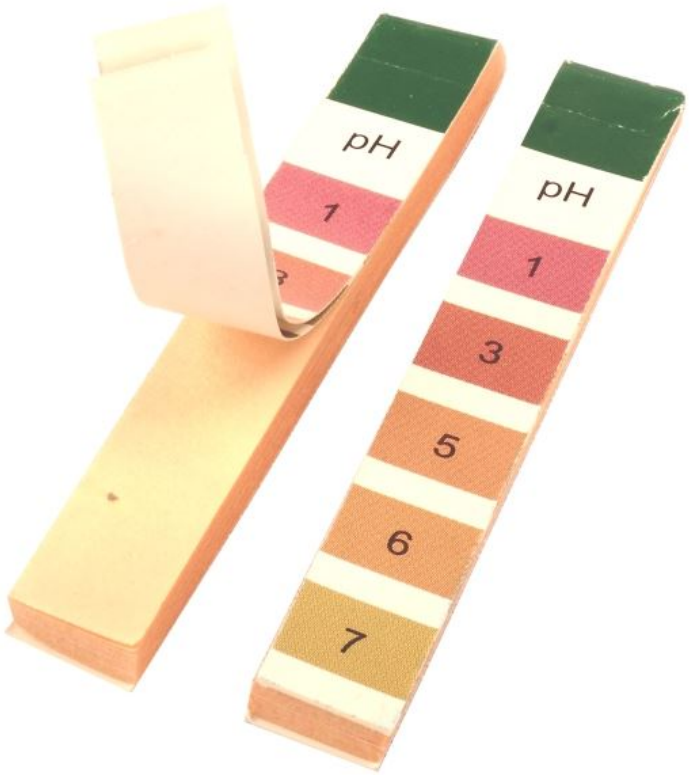
DOS AND DON'TS



MEASURING THE RIGHT THING



LOC LOL, ANYONE?







AVOID DATA OVERLOAD



USE RELIABLE DATA



”MEDIUM” IN BRAZIL



”MEDIUM” IN RUSSIA

COMMON VOCABULARY IS IMPORTANT

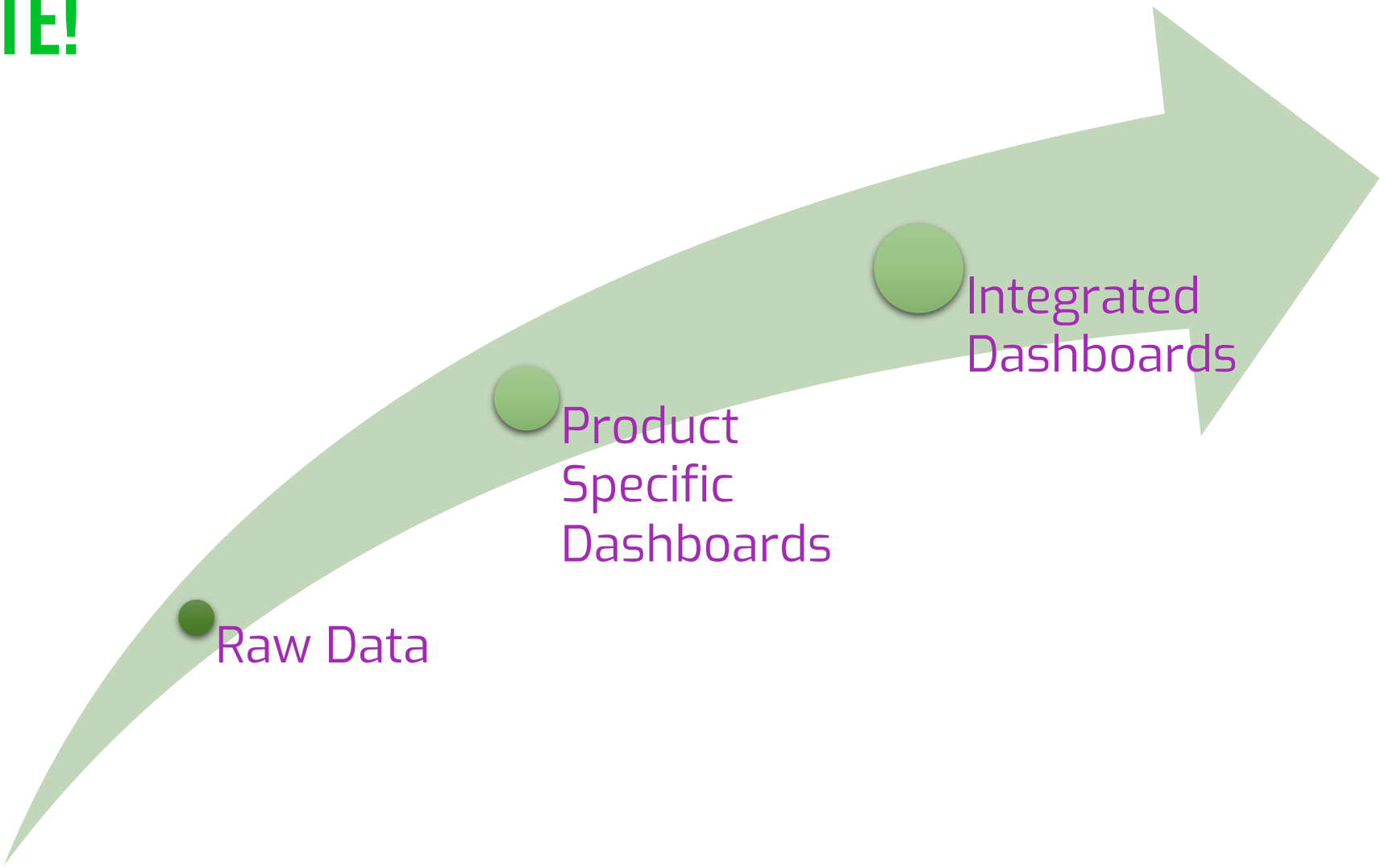
METRICS GENERATE INCENTIVES, BE AWARE!





TWEAK AS YOU GO

ELEVATE!


Integrated
Dashboards
Product
Specific
Dashboards
Raw Data

demo-application

Time Range: Last Year

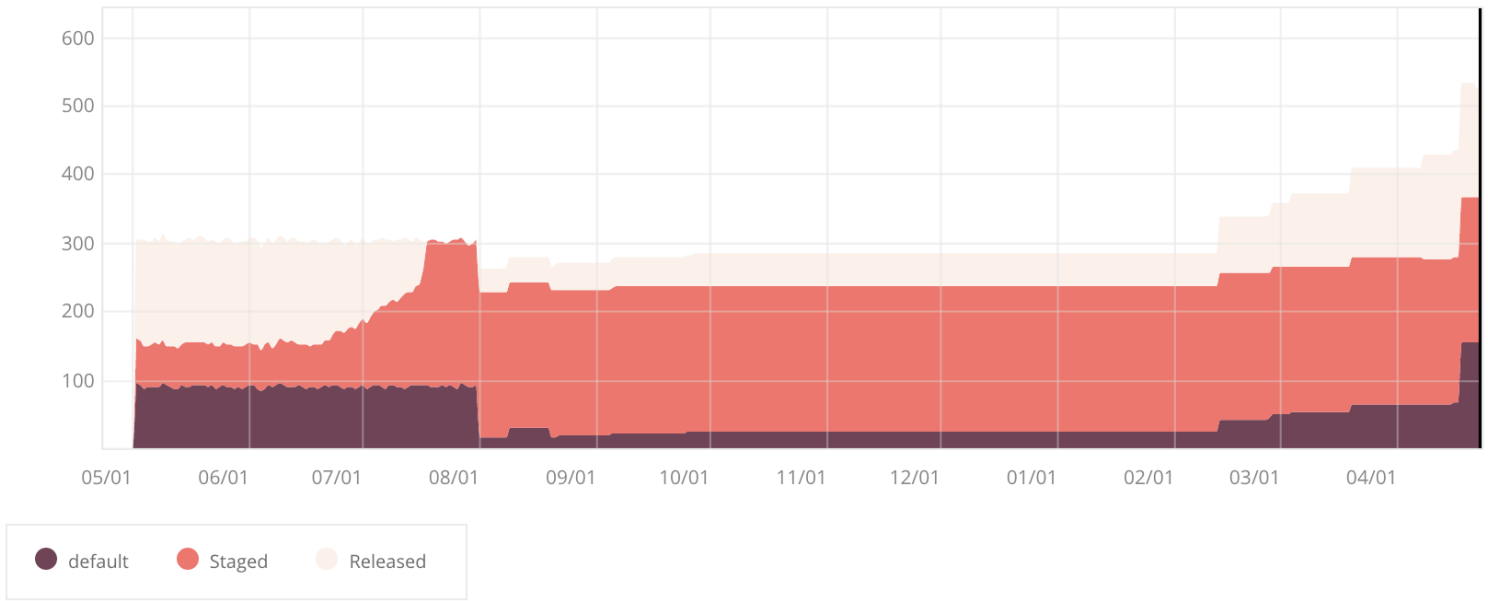
Show Builds: step2-create-docker-image-te...

Status: All

Actions

Last time refreshed: Tue Apr 23 2019 17:45:33 -0700 GMT

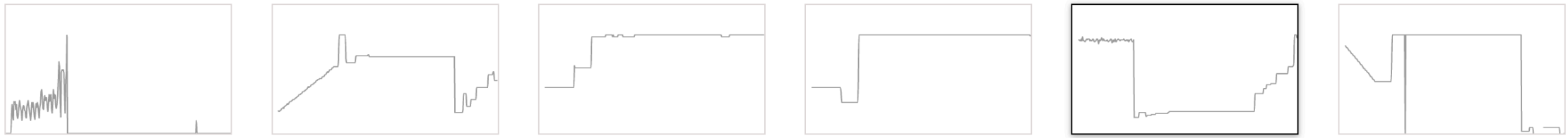
Build Runs Promotion



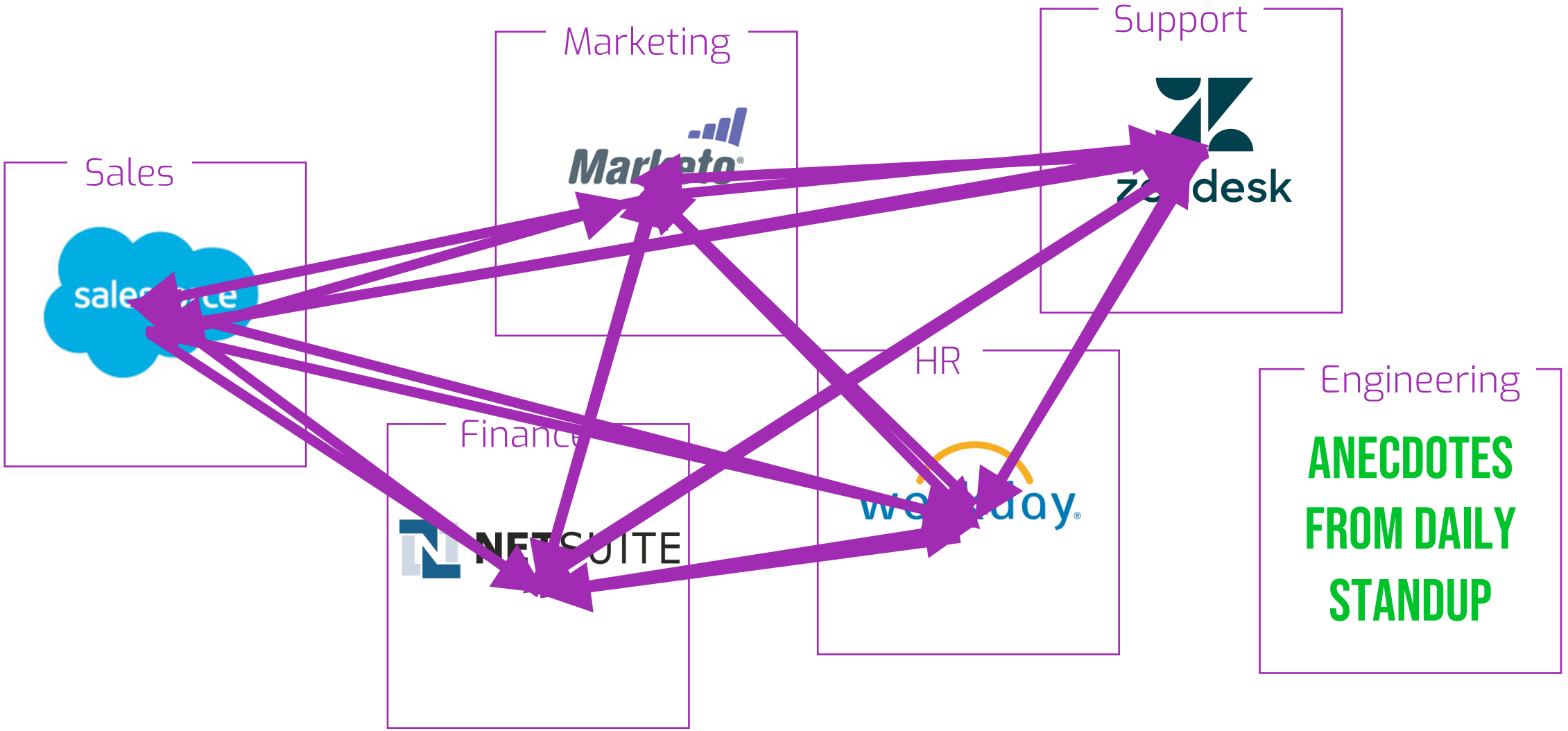
Apr 23 2019

Stage	Build	Total Run... %
Released		157
default		156

691	00:01:23	45	908.72MB	99.36%	238
Total commits	Average build duration	Total dependencies	Average build storage	Average build promotions	Average vulnerabilities count



HOW DEPARTMENTS MEASURE



STEP INTO DATA-DRIVEN LIFE

 Removes blame game

 Builds accountability and trust

 Creates common base for discussion

 Enables DevOps

Q&A AND TWITTER ADS

 @jbaruch

 #CincyDeliver

 #DataDrivenDevOps

 http://jfrog.com/shownotes