

**DISCOVERY ISN'T A  
PART-TIME JOB**

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WADE SHEARER



# Wade Shearer

Vice President of User Experience  
**WORKFRONT**

“What if we found ourselves building something that nobody wanted?  
In that case what did it matter if we did it on time or on budget?”

—ERIC RIES, THE LEAN STARTUP

“We must learn the truth about which elements of our strategy are working to realize our vision and which are just crazy. We must learn what customers really want, not what they say they want or what we think they should want.”

—ERIC RIES, THE LEAN STARTUP

# PRODUCT DISCOVERY

# PRODUCT DISCOVERY

vs.

# PRODUCT DELIVERY

# PRODUCT DISCOVERY

vs.

# PRODUCT DELIVERY

Building it

# PRODUCT DISCOVERY

Deciding what to build

vs.

# PRODUCT DELIVERY

Building it

# PRODUCT DISCOVERY

Deciding what to build

vs.

# PRODUCT DELIVERY

Building it

Ship fast

# PRODUCT DISCOVERY

Deciding what to build

?

vs.

# PRODUCT DELIVERY

Building it

Ship fast

# DECIDING WHAT TO BUILD

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## Agile

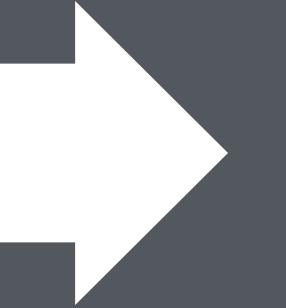
Are we  
building  
what the  
stakeholders  
want?

# DECIDING WHAT TO BUILD

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Agile

Are we  
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want?



UX

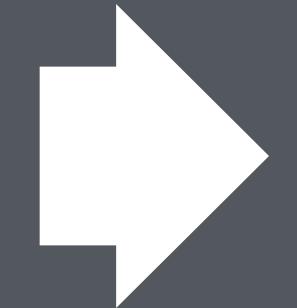
Are we  
building  
something  
customers  
can use?

# DECIDING WHAT TO BUILD

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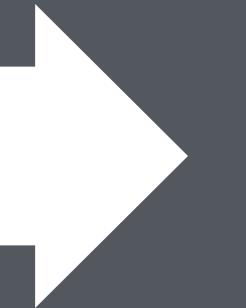
Agile

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Lean

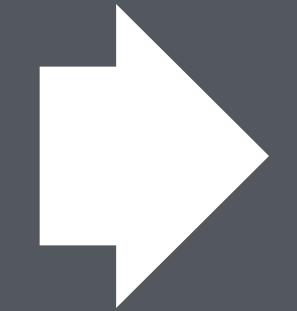
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# DECIDING WHAT TO BUILD

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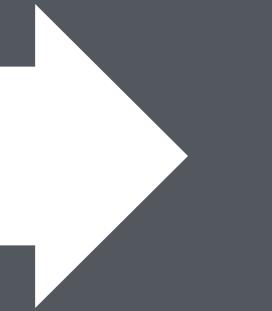
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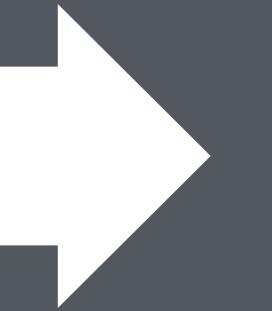
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Are we  
building  
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can use?



Lean

Are we  
building  
something  
customers  
want?



Jobs

Are we  
solving  
the right  
problems for  
customers?

# ANSWERING CRITICAL QUESTIONS EARLIER IN THE PROCESS

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Agile

Are we  
building  
what the  
stakeholders  
want?



UX

Are we  
building  
something  
customers  
can use?



Lean

Are we  
building  
something  
customers  
want?



Jobs

Are we  
solving  
the right  
problems for  
customers?



# SHIFT FROM OUTPUT TO OUTCOMES

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**Agile**

Are we  
building  
what the  
stakeholders  
want?

**UX**

Are we  
building  
something  
customers  
can use?

**Lean**

Are we  
building  
something  
customers  
want?

**Jobs**

Are we  
solving  
the right  
problems for  
customers?



**OUTPUT**

**OUTCOMES**

# PRODUCT DISCOVERY

Deciding what to build

Learn fast

vs.

# PRODUCT DELIVERY

Building it.

Ship fast.

# OLD WAY

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Teams generate initiatives,  
rank them, and build the  
highest ranked ones

We know our customers

We are the experts

We are probably right

Full-steam ahead

—TERESA TORRES, PRODUCTTALK

# OLD WAY

---

Teams generate initiatives,  
rank them, and build the  
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# NEW WAY

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Initiatives emerge from a deep  
understanding of the customer  
and are iteratively tested

We need to develop deep empathy  
and knowledge of our customers

Our customers are the experts

We are probably wrong

Experiment and invest as the  
data warrants

"I believe the best managers acknowledge and make room for what they do not know—not just because humility is a virtue but because until one adopts that mindset, the most striking breakthroughs cannot occur. I believe that managers must loosen the controls, not tighten them. They must accept risk; they must trust the people they work with and strive to clear the path for them; and always, they must pay attention to and engage with anything that creates fear. Moreover, successful leaders embrace the reality that their models may be wrong or incomplete. Only when we admit what we don't know can we ever hope to learn it."

—ED CATMULL, CEO OF PIXAR

# PROCESS

# PROCESS

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Product teams with clear accountability

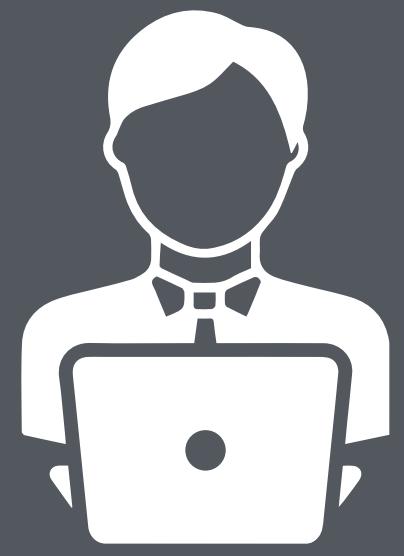
A set of guidelines for making decisions

A culture of goal setting

A lightweight, transparent, comprehensive roadmap

# PROCESS: PRODUCT TEAMS

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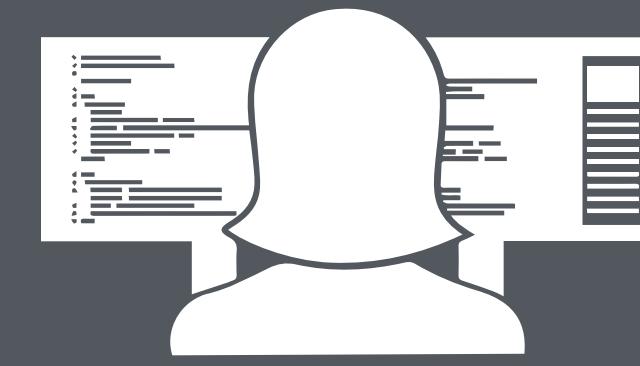
Product  
Manager



Product  
Designer



Engineering  
Lead



2-4 Product  
Engineers

*Optional: Researcher, Marketer, Data scientist, Copywriter, DevOps, Visual Designer, Prototyper*

# PROCESS: MAKING DECISIONS

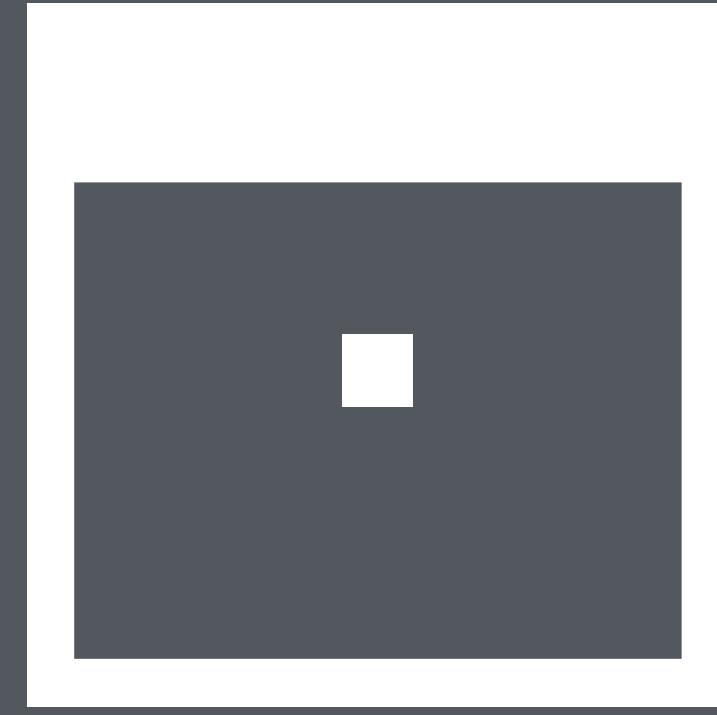
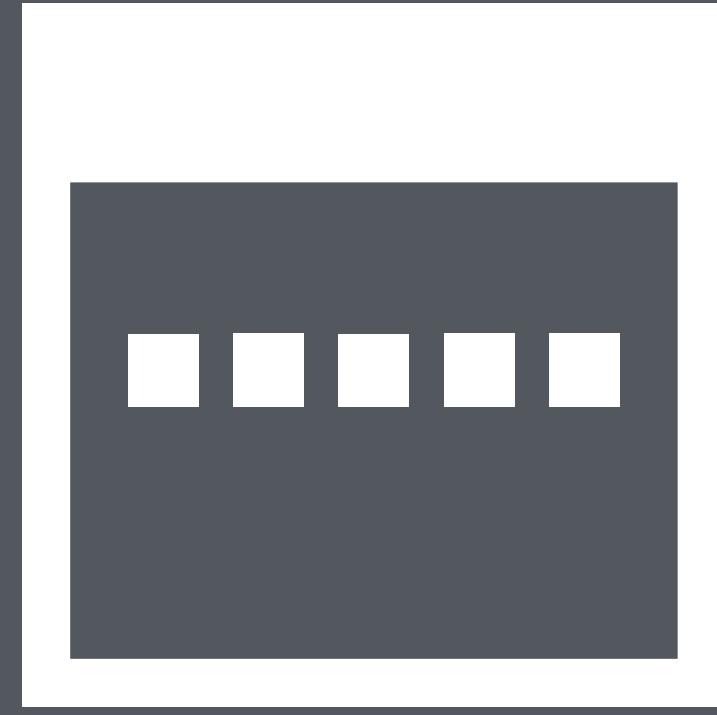
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Many small steps are better than bigger launches

# PROCESS: MAKING DECISIONS

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When you think about building, think about daily and weekly goals

# PROCESS: MAKING DECISIONS

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Optimize for face-to-face collaboration

# PROCESS: MAKING DECISIONS

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Fight against work-work

# PROCESS: MAKING DECISIONS

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Outcomes matter much more than the plan

“Successful design is not done in an exclusive phase, in a vacuum, or even exclusively by designers. Design needs to be an integrated consideration in all project inputs and outputs. It also should be a continuous activity from the beginning of the project, throughout the life cycle of the project, and beyond.”

—LINDSAY RATCLIFFE AND MARC MCNEILL, AGILE EXPERIENCE DESIGN

# PROCESS: ROADMAP

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Mission (our vision, focus, North Star)

Strategy (major themes)

Objectives

Experiments (projects)

Releases

# MISSION



## STRATEGY



## OBJECTIVES



## PROJECTS



## RELEASES



# PROCESS: ROADMAP CONTENT

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The next 4-6 weeks are solid, with clear releases.

The following few months are planned, with high level project briefs describing the problem and opportunity.

Beyond a few months out is speculative, loose ideas that align with our mission.

# PROCESS: ROADMAP SOURCES

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Things we believe in

Qualitative feedback from customers

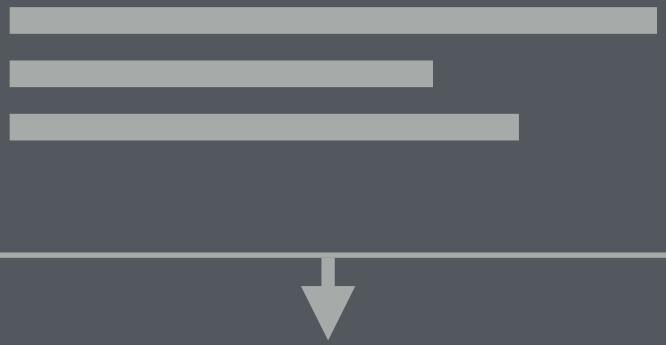
- Solicited feedback from customers including studies by our research team, and conversations between product managers and customers.
- Unsolicited feedback from customers that come from Customer Success and Customer Support.
- Feedback from sales conversations.

Quantitative data based on measuring performance of our current product

- The success metrics defined in every project.
- Product and team level success metrics.

# PROJECTS

MISSION



STRATEGY



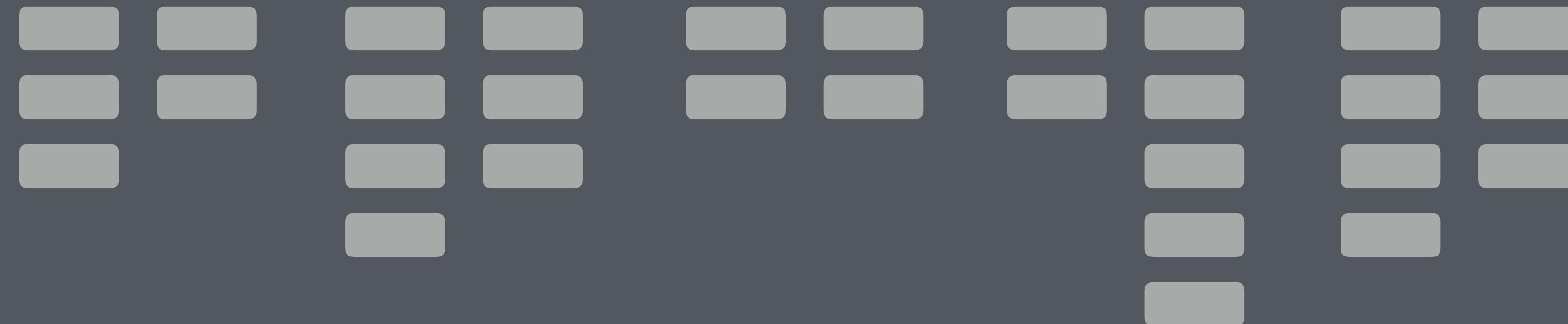
OBJECTIVES



PROJECTS



RELEASES



# CONTINUOUS DISCOVERY

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We don't know it has value until we deliver it into actual use.

It's in the doing of the work that we discover the work that we must do.

We validate whether our hypothesis was true and then do something about it (positive or negative).

Discovery isn't a phase or sprint.

Shift from output to outcomes.

An open backlog where everything is considered speculation and hypothesis.

“The main reason I love to deliver continuously is to get product feedback and validation sooner. The moment a new product or feature gets delivered to your customers, you start to get real feedback. Yes, there are a bunch of things you can do to test ideas before this with interviews, mockups, prototypes and user tests. I love these practices too, and I am not advocating ‘build it and they will come.’ Yet there is nothing like the rubber-hits-the-road feedback you get, having pushed a new feature to production, to really learn if it achieves what you hoped it would—or not.”

—SUZIE PRINCE, THOUGHTWORKS STUDIO

# CONTINUOUS DISCOVERY

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Organizations are starting getting better at doing research.

Some are formulating assumptions and hypotheses.

The missing pieces though are:

- being outcome-based
- defining success criteria
- recording the results
- using the learning to guide the next decision

# CONTINUOUS DISCOVERY: BEHAVIOR

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Change the teams behavior by changing their motivation:

- Instead of tracking what you ship, track what you learn.
- Give them a problem to solve, not a solution to implement
- Strive for egoless ideation, where folks separate their self-worth from their ideas and are quick to support other's (good) ideas. Strong opinions, weakly held.
- Instead of passively watching product metrics roll in, a target forces you to be proactive: what could we do to make sure we met it? The whole team changed from a "wait-and-see" mindset, to a "fight-for-usage" mindset. If focuses you on what you can do to directly influence your target.

# CONTINUOUS DISCOVERY: DATA

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Data has two roles to play in the product process:  
discovery and validation.

Use data to guide you to what you should be building.  
Then use data to make sure you were right.

# CONTINUOUS DISCOVERY: HISTORY

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Our natural inclination is to assume our past success is because of our past actions. This can create very bad product dogma if left unchecked. What were the right things to do in the past might not be the right things to do in the present.

Even if past actions did lead to success, remember that everything else has changed. New platforms, new users, new dynamics. Re-apply your strengths in your new environment.

# CONTINUOUS DISCOVERY: CHALLENGES

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Release planning

Product marketing

Training staff

Keeping documentation current

Integrations

Partnerships

# EXPERIMENT (PROJECT BRIEF)

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## Assumption

What problem are we solving and why?

## Job stories

What value will we deliver to customers and what will it enable them to do?

## Hypotheses

How will we measure success?

## Scope

Individual releases, defining cope, and estimated dates for shipping to beta.

## Results

What were the results? What did we learn?

## EXPERIMENT (PROJECT BRIEF)

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### OBJECTIVE:

### ASSUMPTION

*What problem are we solving and why?*

[Our service/product] was designed to achieve [these goals]. We have observed that the [products/service] isn't meeting [these goals], which is causing [this adverse effect] to our business. How might we improve [service/product] so that our customers are more successful based on [these measurable criteria]?

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### JOB STORIES

*Describe job stories to make the value we deliver to the customers clear, and what it will enable them to do.*

When \_\_\_\_\_, I want to be able to \_\_\_\_\_, so I can \_\_\_\_\_.

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### HYPOTHESES

*How we will determine whether the problem has been solved (qualitative and quantitative measures)?*

We believe [this statement is true]. We will know we're [right/wrong] when we see the following feedback from the market: [qualitative feedback and/or quantitative feedback and/or key performance indicator change].

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### SCOPE

*Once high level product design is figured out, add the releases, what is in scope and out of scope, and estimated dates for shipping to beta.*

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# EXPERIMENT: ASSUMPTION

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What problem are we solving and why?

Add the problem we're solving (or speculative opportunity we are addressing), why we're solving it, and any links to customer conversations or research. Clearly explain all facets of the problem and how it affects different parts of product or service.

*[Our service/product] was designed to achieve [these goals]. We have observed that the [products/service] isn't meeting [these goals], which is causing [this adverse effect] to our business. How might we improve [service/product] so that our customers are more successful based on [these measurable criteria]?*

# EXPERIMENT: ASSUMPTION

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ClientSuccess was designed to allow customer success managers to see, plan, and record events related to client engagements, lifecycle progress, subscriptions, and health. We have observed that ClientSuccess isn't meeting the needs of tenants with large clients with franchises, multiple departments, or teams, which is causing issues with adoption and sales. How might we improve client management so that these customers are more successful based on improved?

- Can't view health or revenue portfolio-wide.
- Can't then address children that are having issues.
- Don't have visibility to total value of portfolio without manually calculating.
- Don't have the flexibility to manage the diversity of children (contacts, usage, lifecycle, etc)

# EXPERIMENT: JOB STORIES

---

Describe job stories to make the value we deliver to the customers clear, and what it will enable them to do.

*When \_\_\_\_\_, I want to be able to \_\_\_\_\_, so I can \_\_\_\_\_.*

# EXPERIMENT: JOB STORIES

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When managing a portfolio, I want to be able to see summed subscription metrics, so that I can see the total value of the portfolio.

When managing a portfolio, I want to be able to see SuccessCycle status for each child client, so that I can manage projects and coordinate renewals.

When managing a portfolio, I want to be able to see averaged SuccessScore, so that I can see the overall health of the portfolio.

When managing a portfolio, I want to be able to see the last engagement date of child clients, so that I can prioritize my engagement efforts.

# EXPERIMENT: HYPOTHESES

---

How we will determine whether the problem has been solved (qualitative and quantitative measures)?

*We believe [this statement is true]. We will know we're [right/wrong] when we see the following feedback from the market: [qualitative feedback and/or quantitative feedback and/or key performance indicator change].*

# EXPERIMENT: HYPOTHESES

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We believe parent-child support will improve adoption and sales. We will know we're right when we see the following feedback from the market:

- Nike (20k), Reebok (33k), and Toms (19k) (clients who have asked for parent-child support) adopt new functionality within 3 weeks and report 80% favorably response to it solving their needs.
- 100% of tenants with a "parent" custom field (13) adopt new functionality and report 80% favorably response to it solving their needs.
- Close a new deal in Q1 2017 with customers that need parent-child functionality.

# EXPERIMENT: SCOPE

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Once high level product design is figured out, add the releases, what is in scope and out of scope, and estimated dates for shipping to beta.

# EXPERIMENT: NOTES

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Do not define the solution yet.

A project brief must always fit on a single page. If it does not, you haven't a clear enough view of the problem yet. Keep working on it.

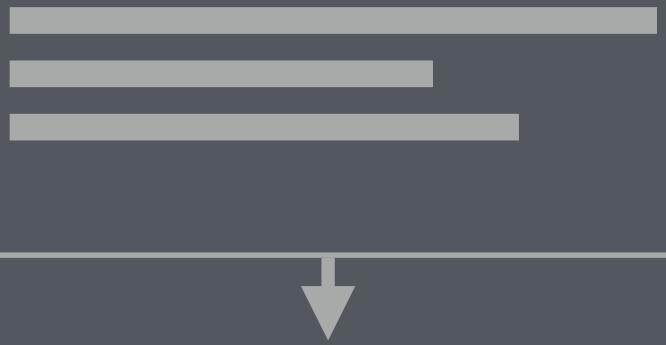
Always have active and upcoming experiments hung in your team area or war room.

Always use plain simple English, no technical terminology or codenames. Write this document as you would describe the problem to a colleague face-to-face.

The PM owns the experiment, but it should be planned by the full team.

# RELEASES

MISSION



STRATEGY



OBJECTIVES



PROJECTS



RELEASES



“We believe you achieve greatness in 1,000 small steps. Therefore we always optimize for shipping the fastest, smallest, simplest thing that will get us closer to our objective and help us learn what works. All our projects are scoped into small independent releases that add value to customers. Everyone should push everyone else to reduce scope and simplify, in order to move faster and not spend time on things that turn out not to be important.”

—PAUL ADAMS, INTERCOM

# CONTINUOUS DELIVERY

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Continuous integration

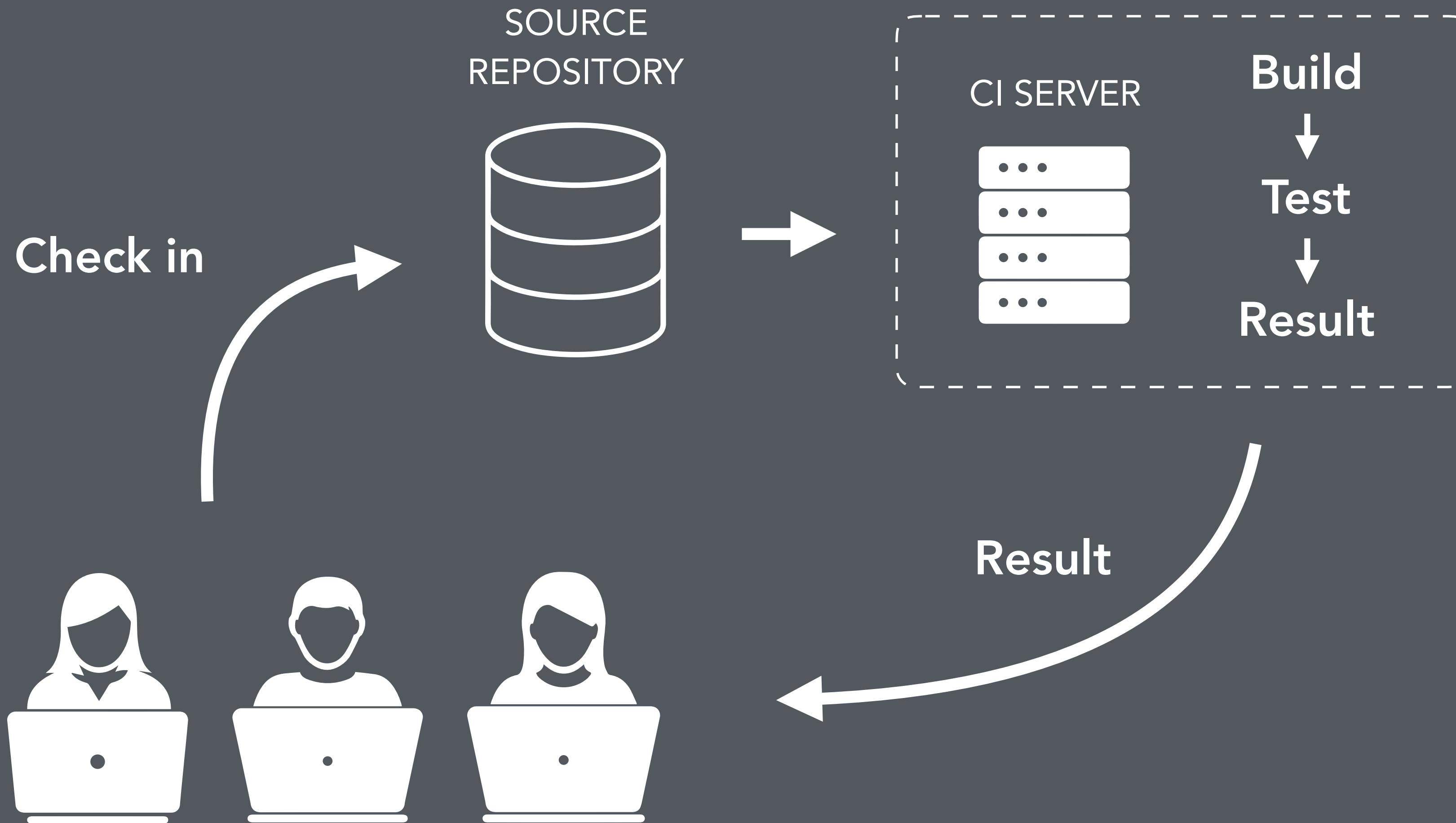
Continuous delivery

Continuous deployment

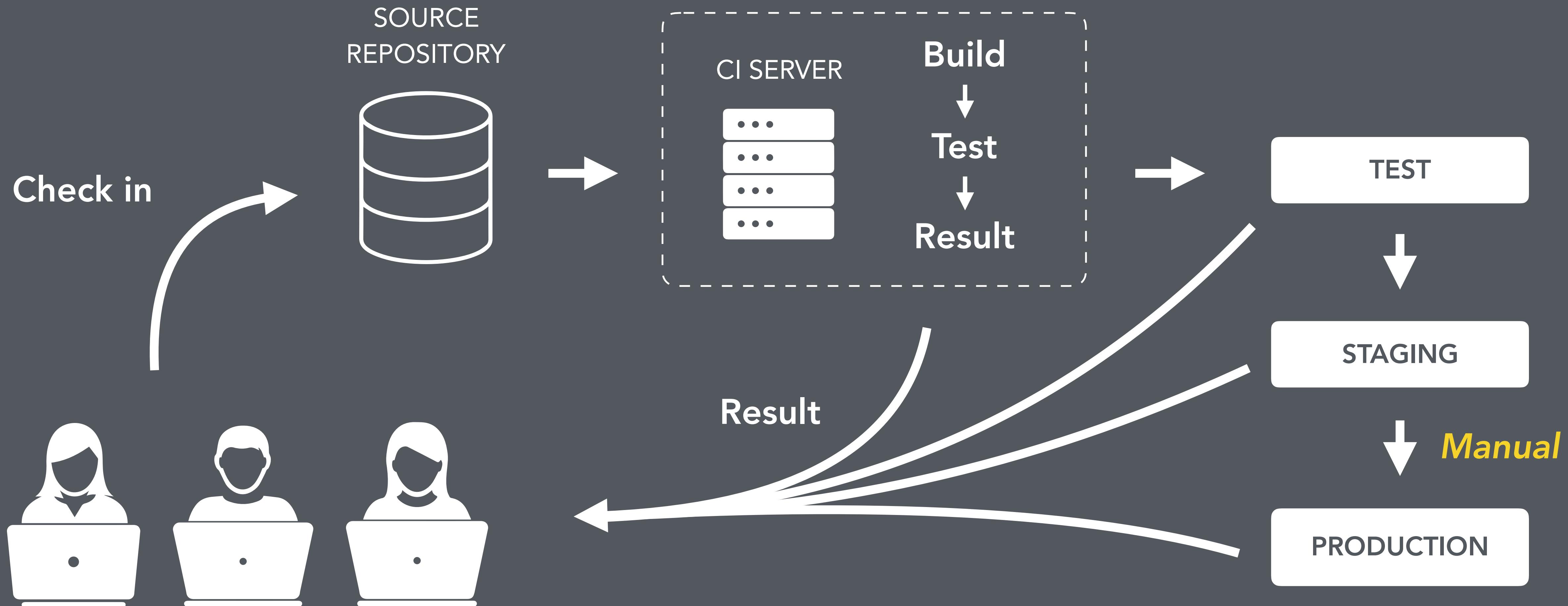
DevOps

Gentle deployment

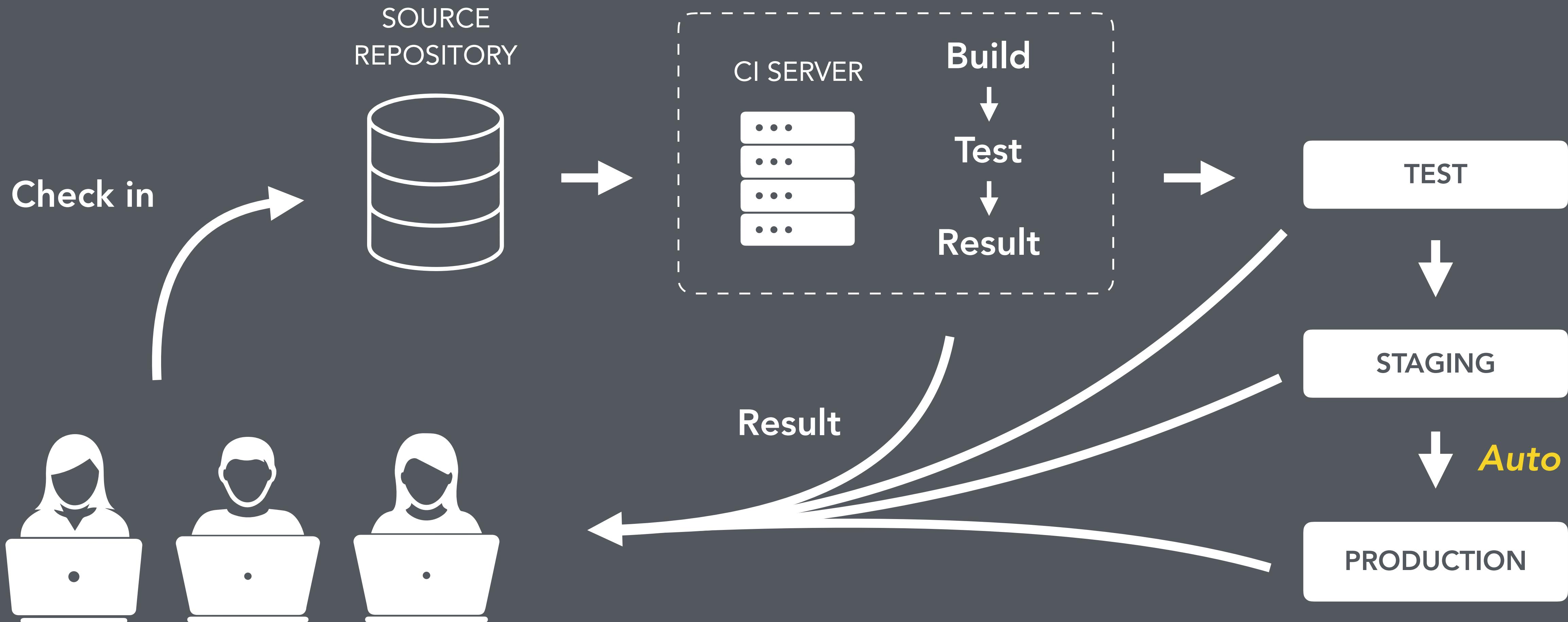
# CONTINUOUS INTEGRATION



# CONTINUOUS DELIVERY



# CONTINUOUS DEPLOYMENT



# GENTLE DEPLOYMENT

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Change things incrementally ("boiling the frog").

Good for customer and good for us, but requires good communication.

Detecting and correcting issues is much easier when you are just changing one thing, or a small number of things, at a time. Double-down on unit tests and QA. Don't be afraid of rolling back.

Deploy it regionally or to segments and then slowly build up or pull back.

If the change is significant, release it in parallel, opt-in beta with a feature flag. Give users sufficient notice when the old version will be discontinued.

# LESSONS LEARNED

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Communication is critical

Labs don't work well without a plan

Changes require deadlines

# LEARNING

# GUIDELINES

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Must have a close deadline.

Define what success metrics look like for your product before you launch. Otherwise, if you try to interpret results after they start coming in, confirmation bias will lead to a non-objective reading.

Success should be measured based on the jobs to be done, not business-oriented metrics. It's the customer's success we're looking for, not ours.

# WHAT CAN YOU MEASURE?

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Growth

Engagement

Revenue

Performance

Quality

“Whether you measure CSAT or NPS, it’s what you do with those measures that really matters. A measure alone won’t tell you anything about why your customers are detractors or promoters (NPS) or why you may be seeing a lower than expected satisfaction score. You may find an increase or decrease in your NPS score, but this is meaningless without understanding what is contributing to the changes and actively addressing the issues. My key recommendation with any customer experience measure is to supplement this with qualitative research (e.g. interviews, focus groups, user testing) to really understand the reasons behind the numbers and to ensure you have actionable outcomes to address any issues uncovered. A measure alone isn’t useful unless you use it to drive and optimise customer experience. So collect, understand and make changes!”

—HELEN CASEWELL, VOX GENERATION

"The only time an experiment fails is when it's inconclusive."

—JB BROWN, DIRECTOR AT PELOTON, FORMER HEAD OF INNOVATION AT NORDSTROM

# ACTIONABLE METRICS

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An actionable metric is one that ties specific and repeatable actions to observed results.

The opposite of actionable metrics are vanity metrics (like web hits or the number of downloads), which only serve to document the current state of the product but offer no insight (by themselves) into how you got there or what to do next. Put another way, things like web hits or downloads are elements of sub-funnels that make up the larger macro metric that matters, such as acquisition and activation.

Micro-level funnels are characterized by short lifecycle events typically measured in minutes, while macro-level funnels are characterized by long lifecycle events typically measured in days or months.

Micro-funnel + cohort (any property that can be attributed to a user).

# GOOD EXAMPLES

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40% of users come back 2x in one week.

Recommendation score 8 across automotive segment.

15% conversion of all new prospects.

Customer A, Customer B, and Customer C (who have asked for parent-child support) adopt new functionality within 3 weeks and report 80% favorably response to it solving their needs.

100% of customers with a "parent" custom field adopt new functionality and report 80% favorably response to it solving their needs.

Close a new deal in Q1 2017 with customers that need parent-child functionality.

# SUCCESSFUL WAYS TO MEASURE

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All the lean startup options (concierge, wizard of oz, landing page, videos)

Prototypes

Labs

Deploy it regionally

Usage

Contextual inquiry

Ethnography

# BAD METHODS: WISDOM OF THE CROWD

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Doesn't work for style, perspective, creative work (jokes, pizza, design, features). It does the opposite. It cuts away the interesting edges and leaves you with something bad. It's worse than any other choice you could make. It's destructive, not neutral.

Works when there is a single, correct answer.

Bad methods: A/B testing, Crowd-source, Adwords, User Voice

Spit-balling. Random tests. You have to have a hypothesis, get data on that and then drive that in.

Seek large effects.

# BAD METHODS: FOCUS GROUPS

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"Even when the subjects are well selected, focus groups are supposed to be merely the source of ideas that need to be researched." —American Sociologist, Robert K. Merton (creator of focus groups)

"Unless you are designing something for use in a focus group, focus groups are absolutely meaningless as an ethnographic research tool." —Ericka Hall

Only gives you opinions that participants are willing to speak in the presence of a group of strangers.

# BAD METHODS: SURVEYS

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Nearly impossible to write survey questions well.

Never ask people what they like or don't like. Liking is a reported mental state and that doesn't necessarily correspond to any behavior.

Avoid asking people to remember anything further back than a few days.

Never ask people to make a prediction of their own future behavior.

You never get to ask "why?"

Don't mix quant with qual.

No 10-point scales.

## TIPS

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For each success metric, come up with a good counter metric that would convince you that you're not simply plugging one hole with another. (For example, a common counter metric for measuring an increase in production is also measuring the quality of each thing produced.) Don't just create a bar to jump over, create guardrails on each side of your beliefs.

If an important metric moves unexpectedly, whether positively or negatively, your first question should be "why?" Don't try to develop strategies to boost/counteract what's going on before you fully understand the why.

## TIPS

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Use the Crystal Ball technique to help you pick the right ways to measure success. Ask yourself “If I could know anything in the world about how people are using my product, what would I want to know in order to tell me whether or not my product was successful?” (Typically the answer people come up with is not # of clicks on a button but something more abstract like How many people who used my product received value from it?) From that answer, work backwards to get to a measurable metric that best approximates what you’re trying to get at.

## TIPS

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Your goals should always be set with the best information you currently have. If you were working towards a predefined goal and then discover new information that changes your understanding of the world, consider whether you should adjust your goals based on that new information.

## TIPS

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Use every data source you can to inform them—whether that's data from a beta, segmenting your customers to better calculate the target, or estimates based on similar features you have released in the past. This will give you a set of assumptions that underpin your target, and provide you with something you can really learn against.

*For example when Intercom was setting a target for their recent Smart Campaigns feature, they made separate estimates of adoption for our highly engaged customers and our less engaged customers. On releasing the feature they were able to see that our less engaged users were not adopting at the rate we expected. This put their focus on talking to these customers to try and identify possible blockers.*

## TIPS

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Select targets you can track in real-time (such as adoption) so that you have a really short feedback loop which you can learn from. Don't set a target that you can only learn from after a long period of time has elapsed. This encourages a "let's wait and see" rather than a "let's try to move the needle" mindset.

# PERFECT USER GROUP

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1. Think about the “perfect” set of users and context for your feature
2. Choose at least one direct impact area and one indirect impact area that the feature will affect.
3. Within those direct and indirect areas of impact, define exact success metrics across your perfect set of users.

# PERFECT USER GROUP: DEFINE GROUP

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*Think about the “perfect” set of users and context for your feature.*

**Good example:** Users from the Western U.S. who signed up since July 7 who are Engineers. During the signup process, they specified they enjoy eating mangoes, and also spoke to one of your customer support representatives within 24 hours of signing up.

# PERFECT USER GROUP: CHOOSE IMPACT AREA

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*Choose at least one direct impact area and one indirect impact area that the feature will affect.*

**Good example:** Let's say you work at an e-commerce company, and you want to remove unnecessary steps from the checkout flow. Direct impact areas would be related to the completion of the checkout flow, maybe completion rates or even average time taken to complete the flow. An indirect impact area would be profits generated.

# PERFECT USER GROUP: DEFINE EXACT METRICS

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*Within those direct and indirect areas of impact, define exact success metrics across your perfect set of users.*

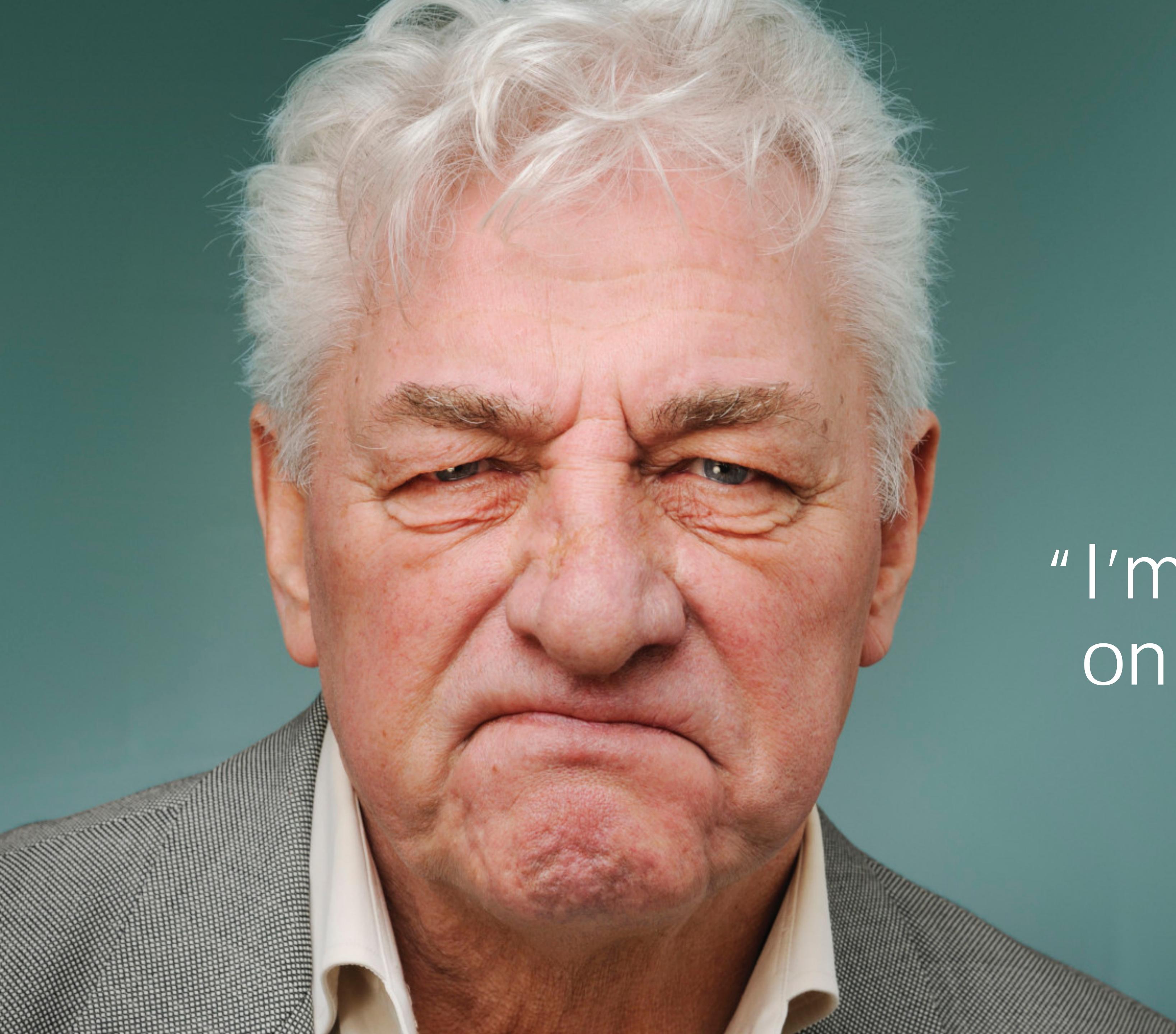
## Good examples:

- Awareness—Percentage of profile page views on mobile devices that resulted in clicks on the review modal (across my perfect set of users).
- Depth—Given the review modal on the profile page was clicked, the average number of seconds spent on the review modal before closing (across my perfect set of users).

# EXCUSES



“I don't work  
at a startup”



“I’m not working  
on a new product”



“I won’t ship crap”



“Won’t this hurt our brand?”



“Someone will  
steal our idea”

“What about  
intellectual  
property?”



# REMEMBER

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Speak of experiments instead of products or features.

Always have a clear understanding of what you want to learn and how you are going to learn it.

Remove any feature, process, or effort that does not contribute directly to the learning you seek.

# GOLDEN NUGGETS

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If we do not know who the customer is,  
we do not know what quality is.

Customers don't care how much time something takes to  
build. They only care if it serves their needs.

The only way to win is to learn faster than anyone else.

*Thank you*

wadeshearer.com