



Mastering Product Management: Building your Strategy

**This document is for your personal, educational,
non-commercial use only.**

Copyright © Stanford University. All Rights Reserved.

Course Introduction

Course Outline

- Strategy
 - Company Strategy
 - Product Strategy
 - Feature Strategy
- Execution
- Product Growth

Layers to Strategy

- Company Strategy
 - Vision
 - Mission
 - Values
- Product Strategy
 - Product Roadmap
- Feature Strategy
 - Product Requirements Document (PRD)
 - › Problem Alignment
 - › Solution Alignment
 - › Launch Readiness

Execution and Product Growth

- Execution
 - Operational Cycle / Sprint
- Product Growth

What We Expect You to Learn

- Strategy
 - Company strategy – Understand a vision, a mission, and set of values
 - Product strategy - How to take a company strategy and turn it into a product strategy
 - Feature strategy - Product requirement documents
- Execution
 - Difference between project management and product management
 - How to run an operational cycle
- Product Growth
 - Communicating with the customers, customer acquisition
 - Experimentation

Company Strategy

Mission, Vision and Core Values

Mission Statement

- Declaration of your organization's purpose
- Spotlights the customer needs
- Underlying “why” you are in business

“

To organize the world's information and make it universally
accessible and useful

- Google's Mission Statement

”

“

To nurture and inspire the human spirit — one person, one
cup and one neighborhood at a time

- Starbucks mission statement

”

Vision Statement

Referred to as a Big, Hairy, Audacious Goal (BHAG)

- Future casting
- Audacious
- Motivating and purpose-driven
- Builds on core competencies

“

To be earth's most customer centric company — to build a place where people can come to find and discover anything they might want to buy online

- Amazon's Vision Statement

”

“

A world without breast cancer

- Susan G. Komen for the Cure Vision statement

”

“

To be the world's best quick service restaurant experience, where being the best means providing outstanding quality, service, cleanliness, and value, so that we make every customer in every restaurant smile

- McDonald's Vision Statement

”

“

Everyone is welcomed and feels at home — no matter where in the world and no matter who you are

- Airbnb's Vision statement

”

Core Values

- Helps the company determine the “how” of what they’re doing
- Values are enduring, passionate, and distinctive beliefs
- Reputation for traits such as :
 - Leadership
 - Product innovation
 - Total customer satisfaction

Key Characteristics of Values

- Memorable
- Specific
- Shared

“



We always felt that people should be treated right as a matter of morality. That turned out to be good business too. But it didn't really start as a strategy. It began with us thinking about what is the right thing to do in a business context. We said we want to really take care of these people, we want to honor them and we love them as individuals. Now that induces the kind of reciprocal trust that made us successful.

- Herb Kelleher, former CEO of Southwest Airlines

”

Company Strategy

Value Proposition and Competitive Positioning

Value Exchange

Provide someone with a product/service that will exchange with:

- Money
- Time
- Data

Value Proposition

- The core element of your product or service that meets a consumer's need
- The more it meets the need, is the more the consumer is going to be willing to pay

Value Proposition Dimension

1. Functional dimension – make a product work better
 - Effective broom
2. Economic dimension – make a product be cheaper
 - Lowering energy cost
3. Psychological dimension – make a product make people feel better
 - Sports fan t-shirt

Figuring Out Value Proposition

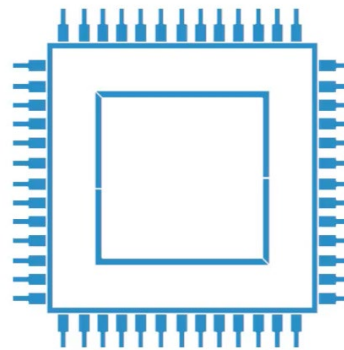
- Comes from an *observation of the market*
- Gap between what they are consuming and what you could offer



Cellphone in 90's

- Bulky
- Big
- Heavy
- Unreliable

Creating a small Chip



Value
proposition:
Mobility

*Products that are valuable are products
that fill gaps*

Things to Remember

- Products on their own do not have a universal value proposition
- Products are not born with value

“

Different people are different

- Bill Barnett,
The Thomas M. Siebel Professor
of Business Leadership, Strategy, and Organizations

”

Segmentation

- Mapping out the different consumer needs and uses



Most comfortable
and long lasting
shoe

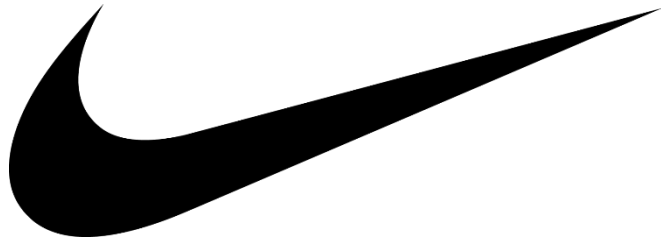


Specialized in
trail running
shoes



Fashion accessory,
representation of an
attitude

New Shoes



- The *Brand*
- Wants what brand represents
- Value proposition is about fashion

Determining Value Proposition

- Watch and listen to the market
- What are people doing?
- What is missing in their life?
- What problems do I need to solve for them?

Start with the customer

Mission and Value Proposition

- Value proposition: The problem you are solving for people - *how you speak to your customers*
- Company mission: Often includes other things that the company considers to be important to makes decisions about delivering the value - *how you speak both internally and externally*

Product Differentiation

- Rule of thumb:
If someone does not have a reason to buy, they are not going to buy your product
- We need to give people reasons to switch
- People are averse to change and averse to risk

Remember

- Sometimes you are not switching someone from one car to another
- Sometimes people are not driving at all!
- Need to have enough differentiation to give people a compelling reason to switch but not so much differentiation.

There is no formula for this.

The only way to figure it out is through iteration and experimentation.

Company Strategy

Airbnb Case Study

Airbnb's Mission and Vision

- Mission: To create a world where people can belong anywhere
- Vision: Everyone is welcomed and feels at home — no matter where in the world and no matter who you are

Airbnb's Core Values

1. Champion the mission
 - Preserving the support channel
2. Be a host
 - Creation of host standard team and host success team
3. Every frame matters
 - Professional photography, unique inventory
4. Be a “cereal” entrepreneur
 - Be creative and scrappy
5. Embrace the adventure
 - Childlike approach to work

Value Proposition for Guests

- Price and value
 - Making travel more accessible and affordable
- Every frame matters
 - Pursuing unique listings

Value Proposition for Hosts

- Be a host
 - Started with casual hosts – those with extra room or empty nesters
- “Cereal” Entrepreneurship
 - Setting up mentors and meetups

Product Differentiation and Competitive Positioning

“Should hotels be allowed on the platform?”

- Non-unique hotels can be filled through other platforms
- Travelers should be able to find homes and listings with unique design

Five Pieces to the Company Strategy

1. Build a loyal, thriving host community through connections with guests, each other, and our company
2. Provide access to unique listings and hospitality to guests at competitive prices
3. Extend belonging beyond the home to experiences
4. Create a platform known for trust and safety
5. Ensure that the platform is built for scale

Product Strategy

Module Overview

- Walkthrough on how to create an amazing product strategy from top to bottom
 - How to form a product strategy from the company strategy
 - How to identify the right product initiatives for your strategy
 - How product strategy shows up in organizational structure
 - How to turn a strategy into a concrete roadmap
 - How to balance the long term and the short term in the strategy

Product Strategy

Translating Company Strategy to Product Strategy

Product Strategy

- Strategy: A set of activities designed to achieve an objective
 - To have a strategy, you need to have an objective
 - A strategy is a set of activities not just a single activity
- In order to have a product strategy, you have to first start with a *company strategy* to set the objectives!
- Executives need to lay out a clear set of goals in a clear priority order

Company Strategy Decomposition

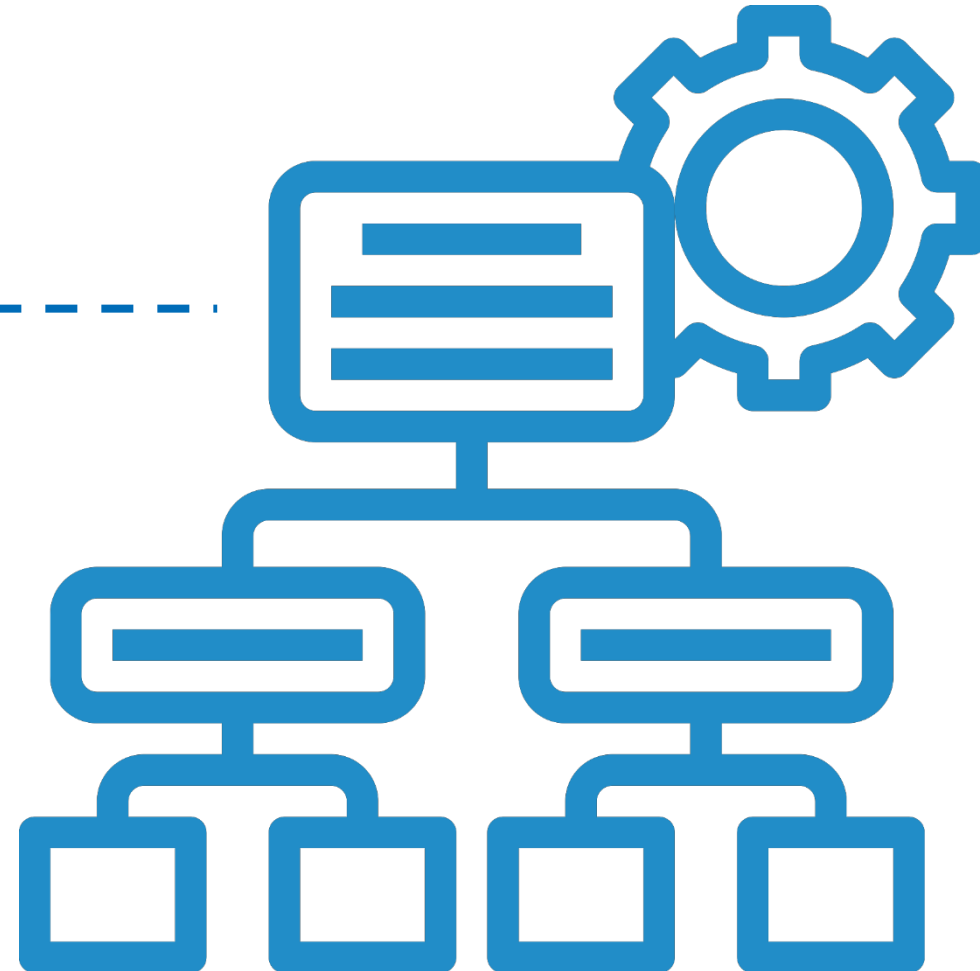
- One of the first jobs of product leaders is to decompose a company strategy
- Take the 3-5 key points from a company strategy and translate them down a level

Decomposition

- Company strategy

- Initiatives

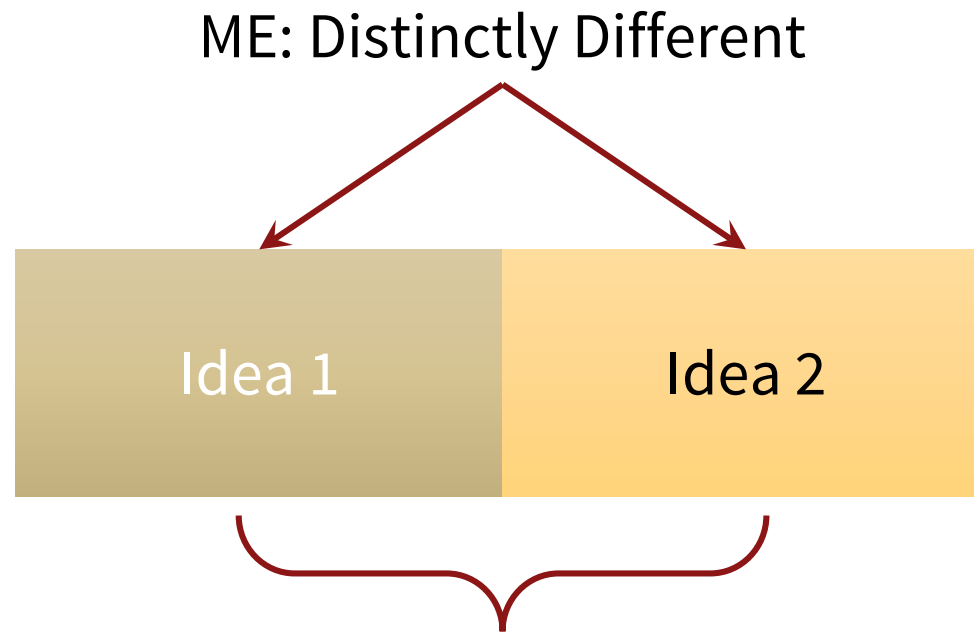
- Product strategy points



Decomposition Example

- Company strategy:
Grow review by focusing on customer happiness
- Decompose statement
 - Onboarding
 - Performance
 - Bugs/issues
 - Feature requests

Mutually Exclusive and Collectively Exhaustive (MECE)



CE: Together, they make a complete whole

Logical Grouping

- Try to create groupings that are logical and coherent from an understanding perspective
- Example: Onboarding
 - The first half of onboarding | The second half of onboarding
 - Onboarding is a coherent customer experience where the customer is walking through your product for the first time to get value
- Grouping
 - Would that team make sense?
 - Would it constantly be blocked on other teams?
 - Could they operate semi-independently?

Impact Thesis

- Create a list of potential focus areas
- Write a short thesis for how it might impact the company goals
 - Improving performance might impact customer happiness
 - Improving onboarding will improve revenue

Levers

- After decomposing the product into mutually exclusive and collectively exhaustive buckets with hypothesis for each one, the next step in the process is **to prioritize which areas to focus on and which to ignore**

Prioritization with Leverage

- Search for the areas where effort will turn into the maximum set of results

Levers Example

- Onboarding
- Performance
- Bugs/issues
- Feature requests

75% of new customers find your onboarding confusing and frustrating

Big Opportunity!

Levers Example

- Onboarding
- Performance
- Bugs/issues
- Feature requests



No complaints

Levers Example

- Onboarding
- Performance
- Bugs/issues
- Feature requests

**Priority :
Onboarding**

*Deprioritize: Performance, new features,
and fixing bugs*

Levers Wrap Up

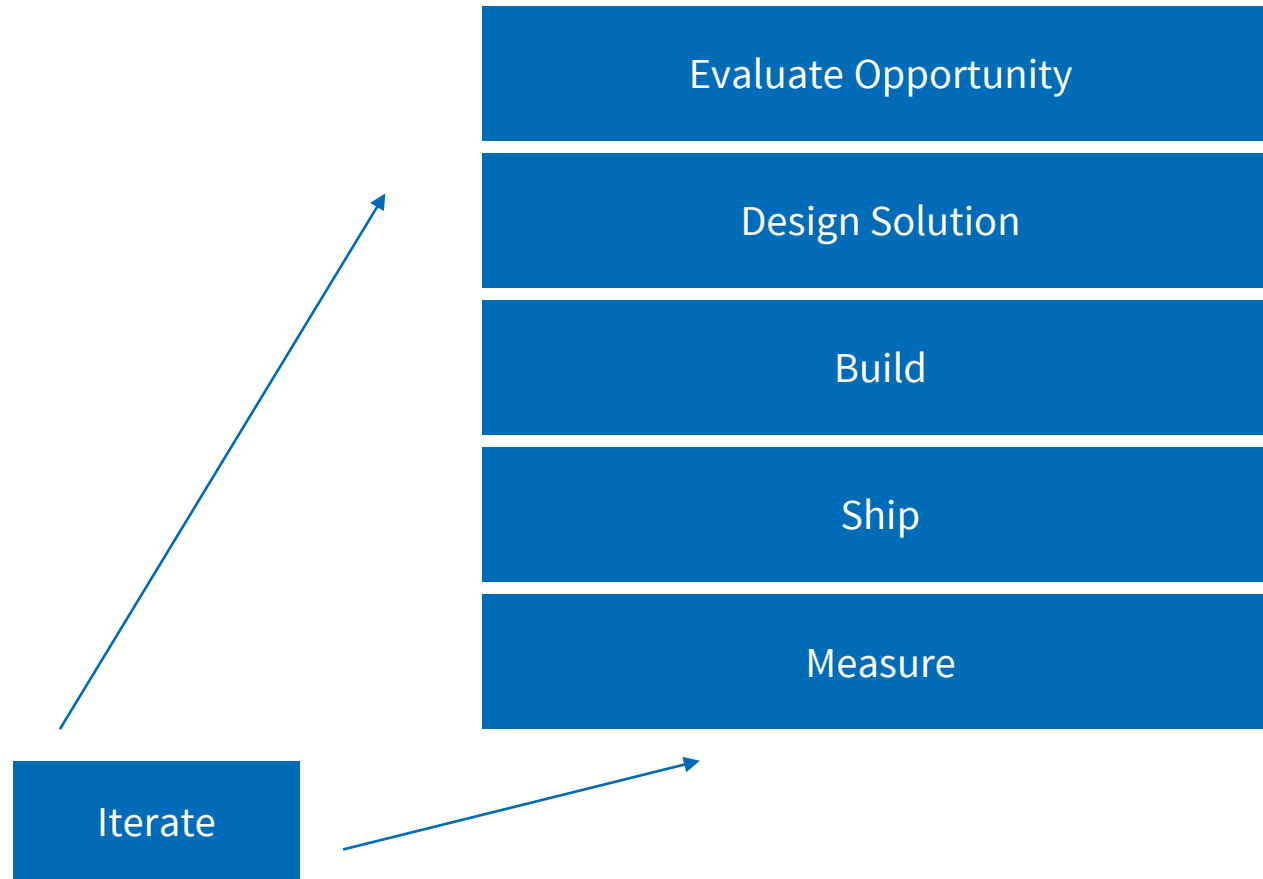
- Taking company objective to product strategy
- Shows when to say *NO*

Customer Vision



- Customers never think of product as separate teams, sees it holistically
- Product managers need to think broadly from a product strategy perspective, look at the problem holistically

Product Lifecycle



Recap

- To turn a company strategy into a product strategy, you have to start with a company strategy
- For each of the objectives in the company strategy, go through it and try to decompose them into logical product groupings where you could impact the outcome
- Groupings should be independent enough to operate separately and have a clearly understood mandate
- Start with many possible groupings before narrowing and have a thesis for each one on how it will impact your goal
- Prioritization - look for points of leverage
- Take a broad, cross-functional approach to these groupings and problems
- For each item in the company strategy, turn it into 3-5 bullets in product strategy that cover your focus areas

Product Strategy

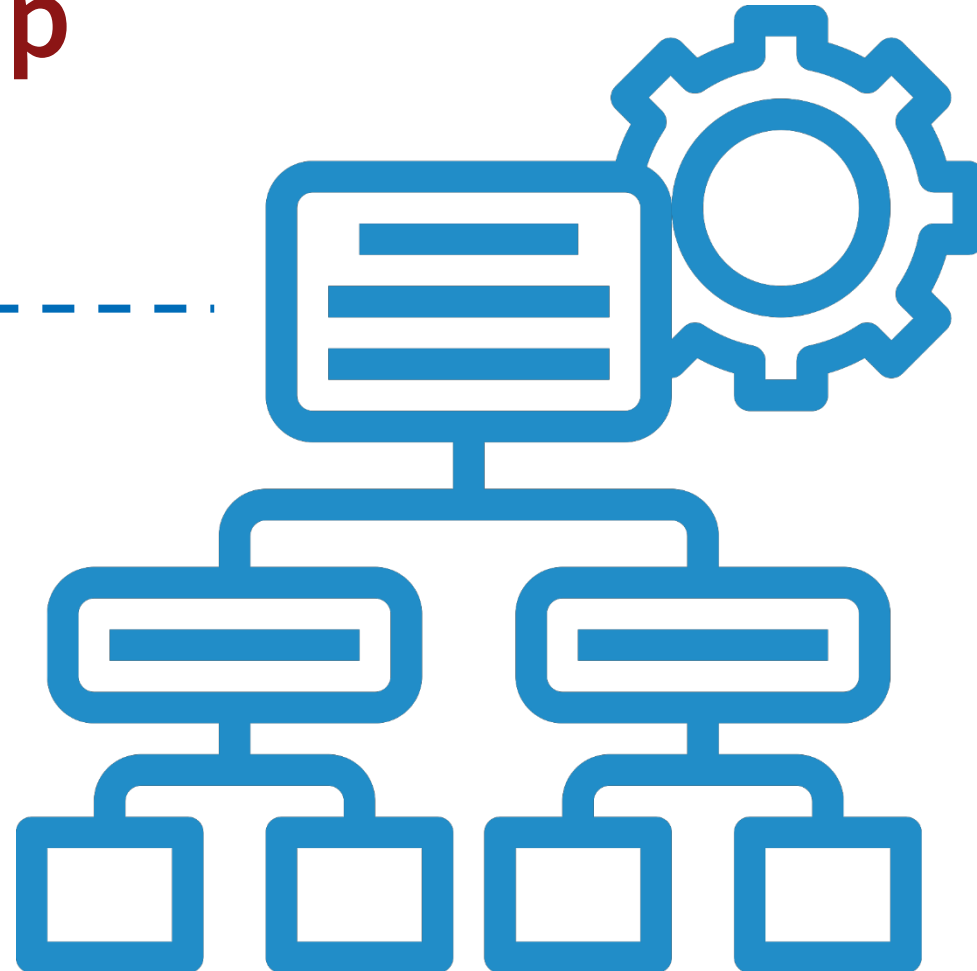
Prioritizing product initiatives

Decomposition Recap

- Company strategy -----

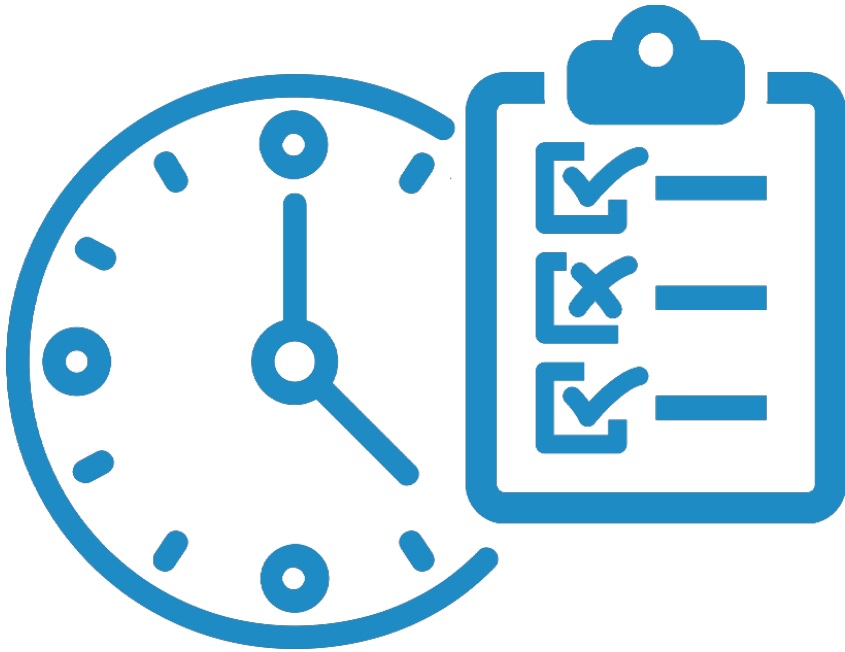
- Initiatives -----

- Product strategy points --



CX Corporation

- A venture capital backed startup which sells software to other businesses which helps reduce their customer support cost



- Grow revenue 3x in one year
- Decrease customer acquisition cost by a factor of 2
- Raising the net promoter score (NPS) from 40 to 50

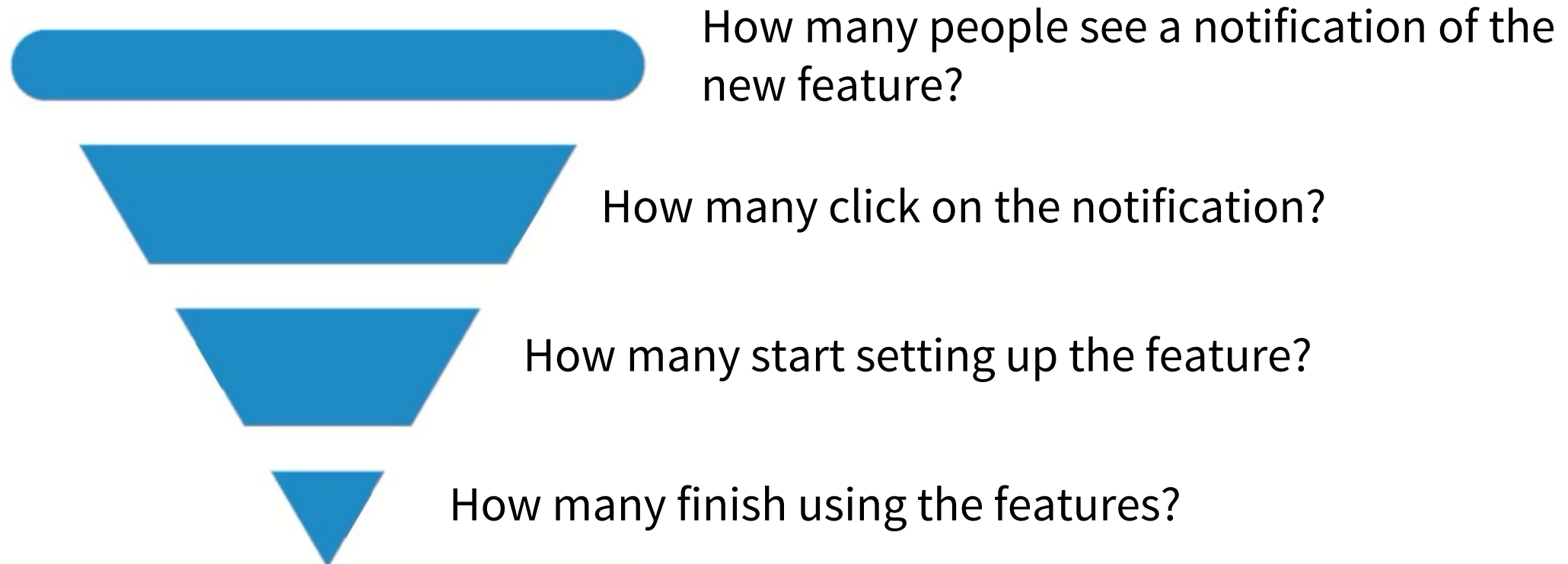
CX Corporation Strategy

- Very clear priority order
- Clear, concrete, measurable outcome for all of the goals
- Does not say HOW to achieve these goals

CX Corporation Decomposition

- Grow revenue by 3x in one year
- Break down revenue growth:
 - New customers – customers who do not use the product today
 - Existing customers – selling the existing customers more things
- Potential product initiatives
 - New customers:
 - › Focus on increasing throughput for our existing target customer today
 - › Expanding the product to reach a new target customer
 - Existing customers:
 - › Focus on selling them more of the product they already have
 - › Develop and sell new, complimentary product

Funnel for a New Feature



Funnel for a New Feature



For each step, we can ask:

- How many people enter this step of the process?
- How many people successfully complete this step?
- How many people fail to complete this step?

CX Corporation – New Customers



- How many leads do we generate and where do they come from?
- How many successfully book time with a salesperson?
- How many of those sales conversations turn into actually sending a quote to the customer?
- How many customers actually sign that quote?
- How many customers complete the onboarding process after signing a quote?

CX Corporation – New Customer Leads

- Referral program
- Happy customers share their experience

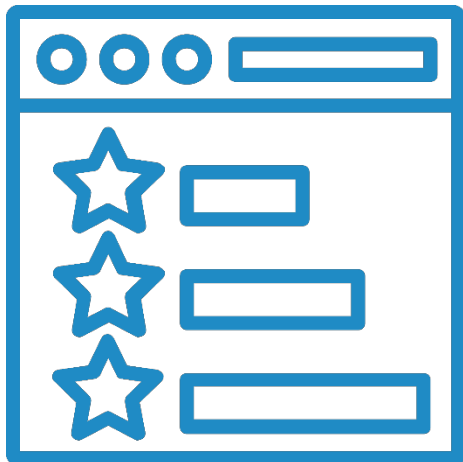
Top, Down Estimation

- Relies on using benchmarks or other external data to estimate what might be possible relative to where you are today
- Uses benchmarks, common sense, and industry estimates to predict what might be possible relative to where you are today
- It is a quick way of understanding whether you are best in class on a particular dimension or not
- Very sensitive to picking the right benchmarks
- It is a very powerful tool for quickly getting an understanding of how much upside there might be in an area

Top, Down Example

Extremely
useful as a
primer for
intuition

- Churn rate is 3% per month
- Look up what a good churn rate looks like for similar businesses at a similar stage and realize that it's closer to 1% per month
- There may be an opportunity to cut your churn rate by a third!



- Freemium product – 0.5% users are converting to paid users
- Research shows 2% is a realistic goal

It tells you what might be possible, but does not tell you anything about *how* to accomplish it

Bottom, Up Estimation

- Pick a set of projects
- Use Fermi estimation and funnel analysis to estimate their impact
- Sum these projects together
- Use the sum to estimate the potential impact

Bottom, Up Example



- 3% churn rate
- Come up with 5-7 different projects to reduce churn
 - Adding a discount for churning customers would decrease churn 1%
 - Automatically renewing a subscription would decrease churn 1%.
- Sum all of these projects together

Reducing churn by 1% twice means we might be able to decrease churn by 2%

Bottom, Up Estimation

Use it as an input
into prioritization

- It tells you how you are going to accomplish the task but requires a lot of speculation about the impacts of individual projects
- Need to accurately estimate impact for individual projects
- Has a lot of uncertainty around what projects you can actually finish
- Need to have some idea of how many projects you can complete in a time period, before those projects are even designed
- Ends up being heavy on planning overhead
- Need to sum all of these together which compounds the uncertainty across many different projects
- Projects may also interact with each other so completing one project might half the efficacy of another project

Combine Methods

- Set lower and upper bounds on what's possible
- Pick the top 2-3 initiatives out of a longer list
- Start by doing a top, down estimate
 - Quickly let you throw out areas that are not impactful
- Use bottom, up estimation to build more accurate plans for a small set of initiatives

Recommend starting with top down to quickly identify some potential areas of focus and then using bottom up to more deeply explore those focus areas and tradeoff between the remaining set

CX Corporation Example

Potential product initiatives

- New customers:
 - Focus on increasing throughput for our existing target customer today
 - Expanding the product to reach a new target customer
- Existing customers:
 - Focus on selling them more of the product they already have
 - Develop and sell new, complimentary product

CX Corp – Top, Down



Increasing throughput for the existing target customer :

- Comparing your lead to conversion funnel with other companies, you conclude that your overall conversion rate is best in class
- You decide to eliminate focusing on existing target customers.

CX Corp – Top, Down

Is there an opportunity to sell more seats to existing customers?

- Pull data - conclude that the average customer has about 50 employees
- Investigated customer base and public data - only 10% room to grow!
- You decide that you're in pretty good shape here and you deprioritize this initiative as well.



CX Corporation Example

Potential product initiatives

- New customers:
 - ~~▪ Focus on increasing throughput for our existing target customer today~~
 - Expanding the product to reach a new target customer
- Existing customers:
 - ~~▪ Focus on selling them more of the product they already have~~
 - Develop and sell new, complimentary product

CX Corporation Example – New Customer

- Start by focusing on expanding the product to reach a new target customer
- Work with the sales team to understand how many customers aren't buying the product because it's missing a key set of features
- Work with the marketing team to understand if there's an adjacent segment that has a large market size and is worth exploring from a strategy perspective
- Put together a list of 5 project ideas and estimate their impact using some rough estimates of how much sales conversion would increase based on how many customers you lose today because of those features
- Work with your engineering team to ballpark how many of these projects you might be able to complete in a year without fully defining them and you both feel confident that it would be possible to complete all
- Conclude that you might be able to 2x revenue by focusing in this area for a year

CX Corporation Example – New Product

- Do a similar exercise for existing customers who might buy new products
- Interview a dozen existing customers and ask them what their problems are - learn that there's a painful adjacent problem to your existing company that you might be able to solve
- Walk through a similar estimation process by estimating what percent of your existing customer base has this issue, how many might attach to a new product, and how you might price the new product
- Conclude that it's feasible to launch this product in a year with your engineering team
- It might be able to double revenue by getting 50% of your existing customers to attach to this new product if they each pay \$100/year

Recap

- Start by decomposing company strategy into potential product initiatives
- Use top, down estimation to quickly figure out which initiatives are worth exploring more and which need to be eliminated because they are unlikely to yield results
- With the remaining initiatives, use bottom, up estimating to predict impact and understand what you might be able to complete in a certain time period
- Together, the two methods will tell you where to focus your time and effort and will give you the first draft of a product strategy

Product Strategy

Organizational Structure

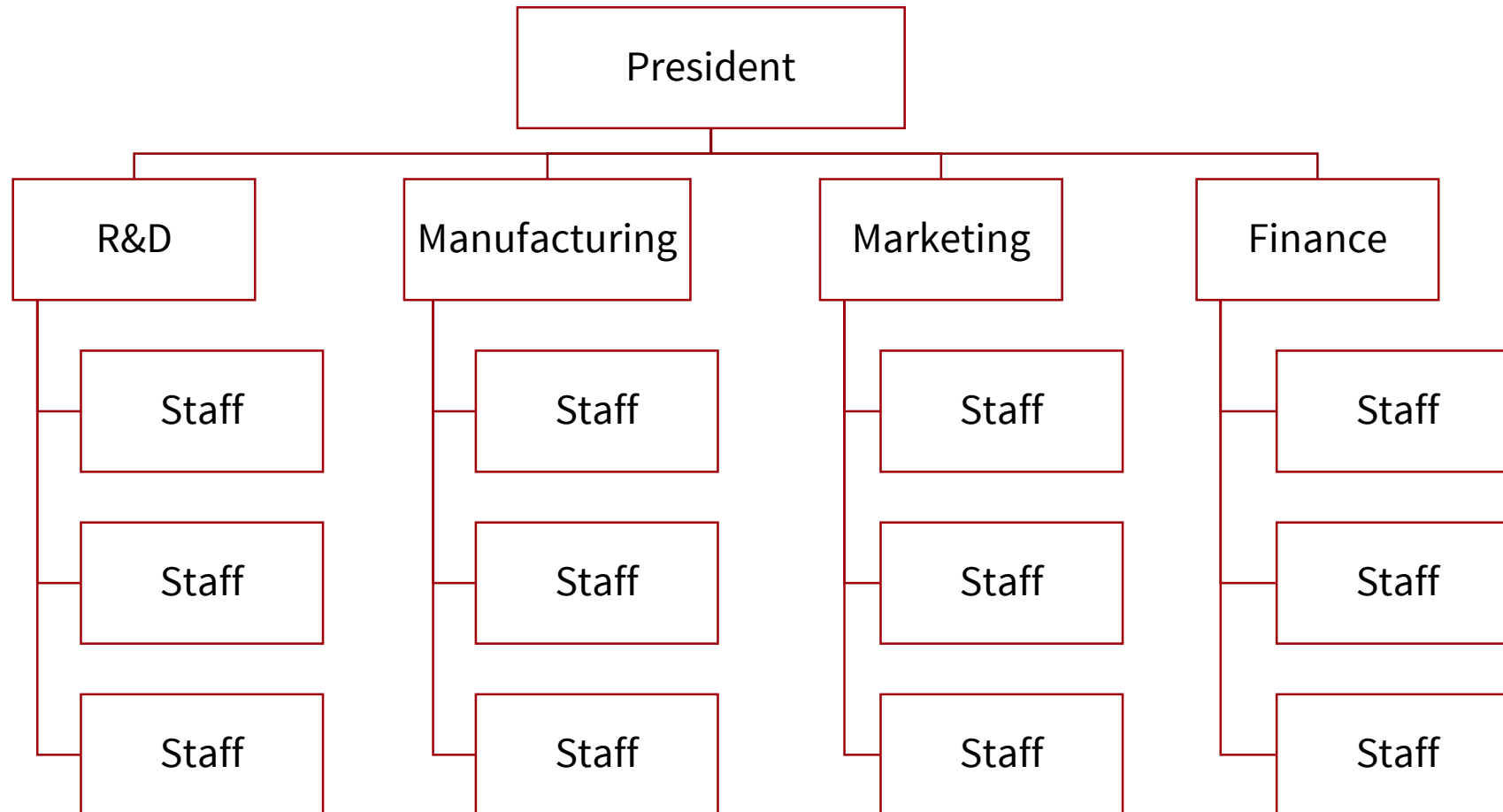
Importance of Organizational Structure

- If your organization structure does not align with your company strategy, it will be very difficult to efficiently execute your company strategy
- It can often be quite challenging to do well

Organizational Structure

- Outlines how coordination, communication, tasks, and reporting structures exist and flow inside of an organization
- The way your company is organized from a people and process perspective to get things done
- The reporting structure of teams and how decisions get made
- Constructing a management structure that allows for speed and flexibility while simultaneously reflecting the goals of the organization
- Types of organizational structures inside of modern software companies:
 - Functional organization
 - Product organization

Functional Organization



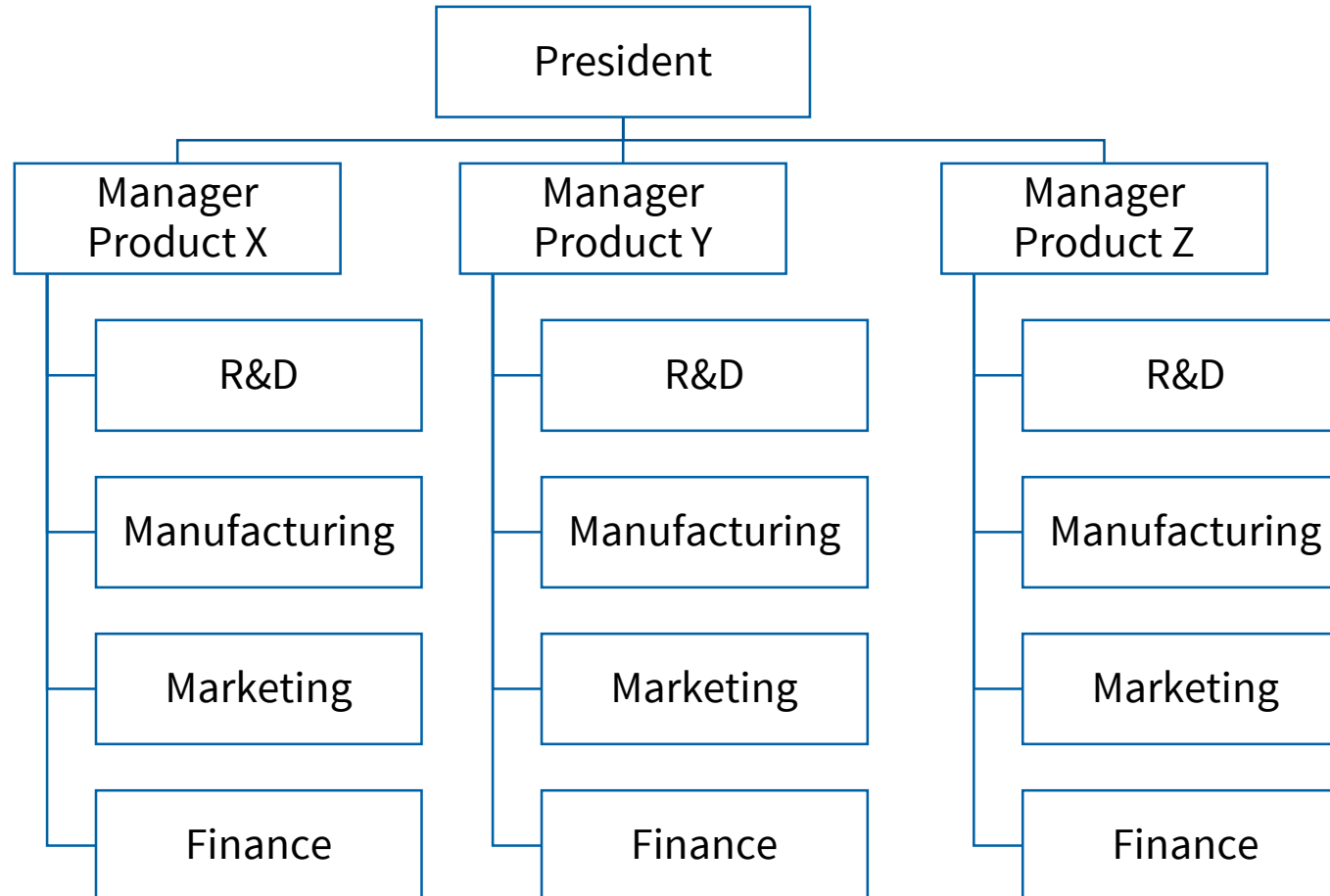
Functional Organization

- People of similar disciplines organized into a management structure which flows up into an executive of a similar discipline
- PM reports to a director of product who reports to a VP of Product who reports to the CEO
- Creates divisions based on discipline
- Occasionally see some mixing at the executive level

Functional Organization – Pros and Cons

- Advantage
 - Specialization and redundancy
 - Strong feedback and mentorship
- Disadvantage
 - Does not encode anything about the actual work to be done or the company strategy which can lead to communication and coordination problem
 - No mention of things like products, lines of business, company priorities, etc
 - Making simple decision is not obvious
 - Can promote diffuse responsibility because it is not obvious who is responsible for a certain initiative or project

Product Organization



Product Organization

- Cross functionally organized into teams that represent products or lines of business
- The PMs in line of business A and in line of business B have separate reporting structures and may not interact much with each other very often

Product Organization – Advantage

- Lines of business can act quickly and autonomously with lower coordination overhead
- A single general manager can quickly make decisions about their product with minimal consideration on the rest of the organization
- Aligns the organization structure with the customer from both a quality and a responsibility perspective
- A product structure clearly and obviously delineates where responsibility stops and starts which can encourage employees to think holistically from a customer perspective and prevent your org structure from seeping through into the product itself

Product Organization – Disadvantage











- Different products can end up unintentionally competing with each other or duplicating effort
- More decentralized which can result in higher agency for each team, but at the cost of strong coordination
- Line managers may be less experienced with the disciplines in their org which can make it harder to give good feedback and provide mentorship and career paths for individual contributors

Matrix Organization

- Combines functional reporting and product reporting in various ways to try and get the best of both worlds
- Responsibility may not be physically represented in their reporting structure but when setting goals, Objectives and Key Results (OKRs), or performance incentives for this group of people, they will be very closely aligned to the results for a particular line of business
- Allows for a balance of autonomy and coordination which can help companies strike the right balance of flexibility and speed

Map Initiatives to a Matrix Organization

- Good bucketing of product initiatives will allow you to map them almost directly 1:1 to a matrixed organizational structure
- Managers/Executives will have a “virtual team” working with them on these product initiatives where not everyone necessarily reports to them directly
- This model creates consistent focus while maintaining flexibility and is how we’ve seen the best companies operate

	PM	R&D	Manufacturing	Marketing	Finance
Manager Product A					
Manager Product B					

Team Sizing

- A huge part of the prioritization role of every senior product leaders and a key detail in product strategy
- How big a team should be as a reflection of the priority to the company and the strategy
- Team size roughly reflects priority inside of an organization
- Senior product leaders make fewer tradeoffs at the feature level

Team sizing is one of the key ways that every senior product leaders reflect the product strategy in their organization structure

Airbnb Case – Company Strategy

1. Build a loyal, thriving host community through connection with guests, each other, and our company
2. Provide access to unique listings and hospitality to guests at competitive prices
3. Extend belonging beyond the home to experiences
4. Create a platform known for trust and safety
5. Leverage our platform for scale: payments, listing, etc.

Airbnb Case - Decomposition

Build a loyal, thriving host community through connection with guests, each other, and our company

1. Improve experience with guests
 - a) Better matches: the guest that will appreciate their home
 - b) Support for hosts when they have a bad guest
2. Improve connection with each other
 - a) Meetups
 - b) Online Forum
3. Improve value they get out of our platform
 - a) Tools
 - b) Prices
 - c) Services

Airbnb Case – Team Organization

1. Marketplace team – connection with guest and host
2. Community team – connection with each other
3. Host success team – support host to get more out of the platform

Airbnb Case – Host Success Team

- Host success team's vision: Every host on our platform is the best entrepreneur they can be
- Host success team's mission: Help each host reach their potential
- Team-level strategy:
 1. Tools
 - › Appealing storefront
 - › Tools to run their operations
 - › Insight to how their business is doing

Airbnb Case – Host Success Team

- Team-level strategy:
 2. Prices
 - › Competitive pricing
 - › Improve price per night
 - › Optimize total revenue
 3. Services
 - › Cleaning
 - › Hospitality
 - › Goods

Product Strategy

Creating a Roadmap

Prerequisites for Building a Roadmap

- Roadmap is often a PM's primary tool for driving results at your company
- Product strategy is a prerequisite - a good roadmap is an execution plan for a product strategy
 - The product strategy outlines what you want to accomplish and the guardrails for doing so
 - The roadmap details how you will accomplish it and when
- Without knowing what problem you're solving with a roadmap, it's very challenging to build one that achieves the goals of the company and its customers

What is a Roadmap

A roadmap is a *living document* that communicates a prioritized *list of projects* to achieve the product strategy

Roadmap – Living Document

- “Living document” - not a static document
 - Good PMs will adjust their roadmap as they learn new things to make sure you’re achieving the goals of the product strategy
 - It should be up to date at all times but also expect it to change over time as priorities shift and projects change
- Organization should understand how and when the roadmap is updated so that they know how to provide input
- Have a clear process and timeline that you share internally for how feedback will be incorporated so that everyone has clear expectations about how this works

Roadmap – List of Projects

- Comprised of projects and they are the primary items that a roadmap contains
- Projects can be at very different altitudes and your roadmap should not just focus on features
- Think of the roadmap as a container that holds projects of different sizes, whether they are big or small
- A good PM will make sure that the projects are appropriately scoped for the project strategy goals and not focus exclusively on features
- Simplify the roadmap to clearly focus on a list of projects



Roadmap – Prioritized List

- Clearly communicate priority order
 - It must clearly outline which projects are more important than other projects and include clear reasoning about why
- A key part of the roadmap skill is prioritization and making explicit decisions about what projects are more important than other projects
- It is ok to change priorities as you get new information but it must be crystal clear at all times what you believe is important and why

Roadmap – Written Communication Tool

- Written communication is a key part of product management
- A self sufficient written document
 - Clearly list the projects and their priority order
 - Provide written context on why
- Connect the projects and the priorities back to the company strategy and make it clear both what you're working on and also why you're working on it

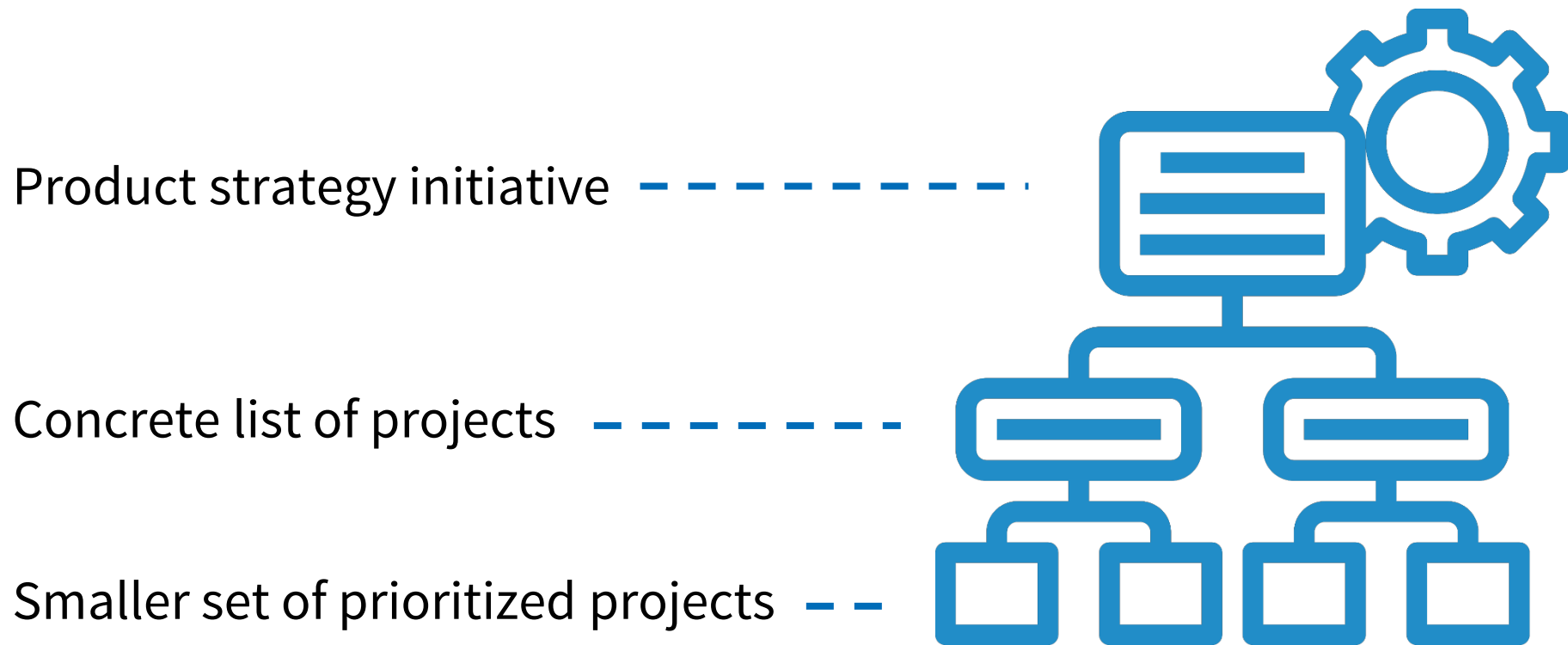
A core responsibility of PMs is to communicate the “why” around projects and an excellent written roadmap is one of your primary tools

Product Strategy to Roadmap

- Product strategy output: A few key initiatives the company should focus on along with a clear explanation of why it will help achieve the company strategy
- Product strategy will provide clear direction about both what to accomplish and how to accomplish
- Roadmap: a clear and concrete set of projects that explicitly outline what you're working on and in what order

Decomposition

- The best way to create a roadmap is to do decomposition



Decomposition

- The deliverable here is more concrete
 - List of projects
 - In priority order
 - Explains why these are the key projects by connecting them back to the product/company strategy
 - In a self sufficient written format
- The output is clear and tangible

Task Management Software Example

- A company which sells task management software directly to consumers
- The company is struggling to make money
- Company strategy:
 - Focus on converting free customers into paid customers
 - Focus on existing free customers

Task Management Software Example

- Break down on existing customers:
 - Brand new customers – Just signed up for the product, less than 30 days old
 - Frequent customers – Using the product for more than 30 days, use the product at least 3 times per week
 - Infrequent customers – Use the product less than 3 times per week
- The product strategy is to focus on the frequent customers
- If someone brings an idea about how to convert infrequent customers into payers, we can clearly say that project is out of scope

Task Management Software Example

- Company strategy: Grow revenue by focusing on converting free users to paid users
- Product strategy: Explicitly focus on frequent users who have been using the product at least 3 times per week for more than 30 days
- List of potential projects:
 - A project that shows frequent customers a popup asking them if they want to buy
 - Interview frequent customers and see if there are missing features that they'd be willing to pay for
 - Place limits to place on the product that only frequent customers would hit
- Run a prioritization and estimation exercise for each of these and clearly conclude which projects you want to pursue and in what priority order

Long Term vs. Short Term

- Every product strategy has to balance the long term and the short term to achieve consistent growth
- Major changes can be very risky
 - Common to spend significant time and money on a new initiative and still have that initiative go nowhere
- As a product leader, a big part of your responsibility is to balance these long term and short term tradeoffs to achieve company objectives

Incremental Improvements

- Improvements to the current product which can help the company grow
- Expand the functionality and the appeal of the current product
- Build on something that already exists
- Rarely result in large changes to the business
 - Lift of 5-25% are usual

Incremental Improvements Example



- Incremental improvements: New functions, better performance, enhanced visuals, and more
- The product slowly and consistently improves over time, but not in a way that's dramatically noticeable to the average user

Major Changes

- Launching very new products or services that may even focus on a different target customer
- Often much riskier than incremental improvements
- Potential result in enormous results for the company and drive new growth

Major Change Example



Amazon Web Services

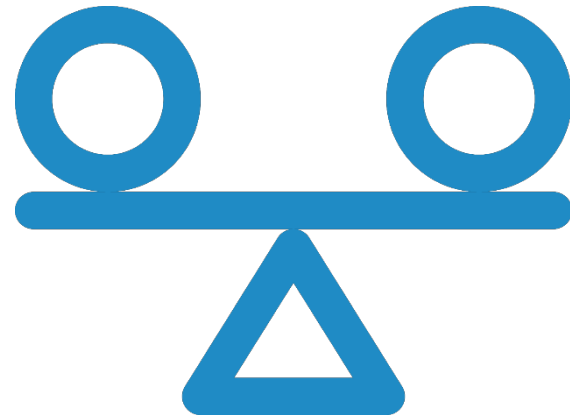
- Launched AWS in 2002
- Getting into the infrastructure business was very different from their existing product offering and was an enormous risk
- In 2020, AWS generate almost \$50Bn in revenue



Fire Phone

- Launched Fire phone in 2014
- Shut it down a few years later
- The product never really gained traction and ended up being a multi-hundred million dollar loss for the company

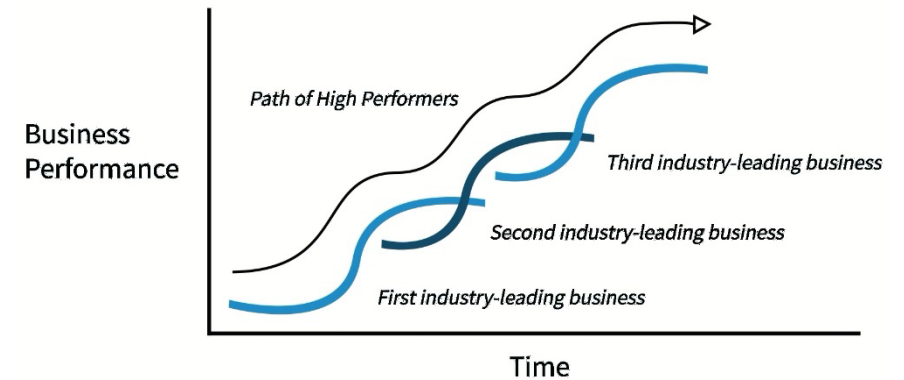
Balancing Initiatives



- Balancing your roadmap between incremental improvements and major changes is a very difficult challenge
 - Well known, well understood : Lower risk, lower reward
 - Transformational initiatives: Higher risk, higher reward
- How should you balance initiatives?

S Curves

- Every leading company is built on a series of S curves
- Launch a first product which starts off slowly before hitting exponential growth
- The exponential growth of that product slows and starts to level off
- At that point, the company needs a new S curve to pick up the slack



S Curves Example

- 1980's : Apple launched personal computers like the Macintosh and the Apple II
- 1990's : Apple was forced to innovate on new products
- Early 2000's : Launched the iPod
- 2007 : Launched the iPhone
- Launched additional products like the iPad, MacBook Air, AirPods, M1 chips, and more
- Apple has done an incredible job of launching major new initiatives over the past 20 years

S Curves

- Have a clear understanding of where your current products are in their S curve lifecycles
- Are they new products that you're hoping will take off?
 - Time to invest in the nascent ones you're already working on
- Are your products in the exponential growth phase where the current product is growing rapidly?
 - Time to invest in scaling and expansion
- Are they in their decline phase?
 - Make sure you have a few major initiatives lined up for launch
- Knowing where your products are in their S curve lifecycles will give you a framework to think about how much to invest in the products

S Curve Phases

- Two distinct phases: Creating value for customers and extracting value from customers
- Creating value: The product delivers value far in excess of its price point
- Extracting value: Pricing changes, packing changes, contracts, etc

Value Creation, Value Extraction

- Possible to be on the exponential growth part of the S curve but that growth is being driven by value extraction instead of value creation
- Signals something about the future trajectory of the product
 - Value creation : Time to continue heavily investing in the existing product and expanding to new customers
 - Value extraction : Need to think about major change initiatives
- Value extraction can drive a lot of revenue for a few years but never lasts forever

Recap

- How much to invest in incremental improvements vs. major changes
- Identify where your products are in their S curve lifecycles
- Value creation and value extraction are valuable tools for understanding where your growth is coming from in your S curve

Product Strategy

Case Studies

Gusto

- Gusto is a company that does payroll, benefits, and HR all in one platform
- 2015 Case:
 - Just launched a nascent benefits product offering health insurance in a few states
 - Raised a venture financing round at a valuation of slightly over \$500M and was trying to figure out what to do next

Gusto Revenue Model



- A fixed price per employee per month of about \$6 plus \$40 base fee
- Benefits were either free or offered at a nominal price per employee of about \$5 per month
- For the free benefits, Gusto could make money by acting as the health insurance broker, say something like \$20 per person per month

Gusto Company Strategy

- Business Objective : Triple revenue this year in an economically efficient manner
 - Economically efficient and fast revenue growth
 - › Growth rate of tripling revenue in a year
 - › Economically efficient: Lifetime value of a customer and the customer acquisition cost on the order of 3 to 1
- Customer Objective: Allow customers to focus on their business by being a delightful and high quality one-stop shop for their people needs
 - Building great products for the customer
 - › Rigorous about measuring the Net Promoter Score (NPS), NPS of 75
 - What Gusto does today is just a small part of what Gusto would do in the future

Decomposition

- Focused into a few different groups within engineering, product, and design at the time
- Group focused on payroll, benefits, growth, and infrastructure
- Each group to decompose the company strategy within their area of focus
 - Payroll team : What would it take to support companies with different types of payroll needs?
 - Benefits team : The best way to expand benefits
 - Growth team : Focused on leads
 - Infrastructure team : What should the company be doing that nobody else is thinking about?

Product Strategy Ideas

- Gusto's annual contract value (ACV) was not very high
- Every new customer added only a small amount of additional revenue
- It limited the tools that the acquisition teams could use to acquire customers
- Maintaining a 3:1 ration between lifetime value and customer acquisition cost is important
- Increase the ACV:
 - Unlock faster growth
 - Require fewer customers to hit our revenue targets
 - Give the team more powerful tools to acquire customers

“What would it take to significantly increase our ACV?”

Customer Research

- “How do you increase ACV” = “How do we get larger customers.”
 - We can transform increasing ACV into “*how do you increase the customer size*”
- Implemented a bunch of customer research to better understand this question
 - Spoke with some of Gusto’s largest existing customers
 - Interviewed sales representatives who had lost larger customers
 - Improved deal tracking making sure that customers were segmented by size and by loss reason
 - Looked through churn data for large customers
- A very clear pattern started to emerge
 - Companies need payroll first, then benefits, and then they need HR tools
 - Gusto was only offering the first 2

Conclusion

- 2 person company: Want a payroll system from day 1
 - 10-20 employees: Benefits starts to get really important
 - More than 20: Most of your problems are HR problems
-
- If Gusto wanted to keep and attract larger customers, Gusto needed to fill out its product offering by building *HR tools*
 - Started a team building HR software
 - Gusto was able to identify a focus area with fantastic overlap between customer desire and business opportunity and that eventually led the team to a lot of success in the future



Airbnb Case: Roadmap

- A roadmap is a living document
- Airbnb strategy:
 1. Build a loyal, thriving host community through connection with guests, each other, and our company
 2. Provide access to unique listings and hospitality to guests at competitive prices
 3. Extend belonging beyond the home to experiences
 4. Create a platform known for trust and safety
 5. Leverage our platform for scale

Company Strategy to Product Strategy

- Improve experience with guests
 - Better matches
 - Support for hosts
- Improve connection with each other
 - Meetups
 - Online Forum
- Improve value they get out of our platform
 - Tools
 - Prices
 - Services

Team Level Product Strategy

- Host Success Team:
 - Tools
 - Have an appealing storefront
 - Have the tools to run their operations
 - Have insight to how their business is doing
- Prices Team:
 - Competitive pricing
 - Improve price per night
 - Optimize total revenue
- Services Team:
 - Cleaning Hospitality
 - Goods

Product Managers in Different Levers

- Product managers working on sub-levers, underneath the big levers
- Product managers under tool
 - Product manager working on optimizing listings page
 - Product manager working on mobile app
 - Product manager working on generating education and insights
- Product managers under price
 - Product manager working on competitive pricing
 - Product manager working on price per night
- Product managers under services
 - Product manager working on cleaning
 - Product manager working on co-hosting
 - Product manager working on goods

Roadmap for Tools Team

- Needed to balance in investing in listings page, mobile app, and insights
 - Listings page had big projects and small experiments
 - Mobile App needed a big overhaul
 - Investing in insights and testing insights comparably on a smaller size
- A roadmap holds projects of different sizes
- A roadmap has a list of prioritized projects

Feature Strategy

Product Requirements Document (PRD)

Feature Strategy

- The job of product managers is to articulate the why, what, and how of what the team is building
- Typically done through an artifact called a product requirements document (PRD)
 - Also called spec, or 1-pager
- Sister artifacts: the marketing and technical requirements docs

Three Parts of a Good PRD

- Part 1: Problem alignment
- Part 2: Solution alignment
- Part 3: Launch readiness

Part 1: Problem Alignment Components

- Background
- Problem statement
- High level approach
- Goals & non-goals
- Assumptions

Part 2: Solution Alignment Components

- Features & scope
- Key flows
- Open issues & key decisions
- Risks & mitigations

Part 3: Launch Readiness Components

- Milestones
- Stakeholder checklist
- Launch checklist

Problem and Solution



Problem Space



Solution Space

- Your job as a product manager is to really get the problem space before moving to the solution space, and to be thoughtful about the solution space before starting to build

PRD: Problem Alignment

- Defining the problem is arguably the most important part of the process
- Components:
 1. Background
 2. Problem statement
 3. High level approach
 4. Goals & non-goals
 5. Assumptions

Component 1: Background

- To describe how this particular feature fits into your overall strategy and prioritization
- Help the audience understand the context behind why you're doing this project or working on this particular feature
- Include who it's for by describing your customer
- Your project should have a direct line to the company's objectives and goals

Component 2: The Problem Statement

- Describe the problem you are trying to solve in 1-2 sentences
- Describe why what you are doing matters to your customers and the business
- Include a couple of bullet points that list the insights and evidence that you have to support why what you're doing matters

I am <who>. I am trying to do <outcome/job>. But <problem/barrier> because <root cause> which makes me feel <emotion>

Component 3: Your High level Approach

- A description of the approach you are taking to solve the problem
- Use words to paint a picture of what the world looks like for users today and what the world should feel like in the future once you've built this feature
- What you write in this section should be enough for the reader to imagine the possible solution directions

Component 4: Goals & Non-Goals

- Goals capture what success looks like
- These Include measurable (metrics) and immeasurable (feelings)
 - Measurable metrics: If we <achieve/enable X>, then <user behavior Y changes in this way> leading to positive metrics Z
- Explain why these metrics are important, if it's not obvious
- Describe when to pull the plug
 - Think about the resources you're using, when to keep going, what are some near term signs of success, or when to double down
- Prioritize your metrics, so it is clear what's most important

Component 4: Goals & Non-Goals

- Important to include immeasurable goals
 - Think, feel, do
- Write out non-goals
 - List explicit areas you do not plan to address and explain why they are not goals

Component 5: Assumptions

- Write out the assumptions you are making about your user, their problem, and your approach
- List out assumptions here that your data scientist, product marketing manager or user researcher might have data to support an alternative view
- Explicitly writing out your assumptions enables you to take a moment to both get feedback and also to ensure there's alignment

PRD: Solution Alignment

- Components:
 1. Features & scope
 2. Key flows
 3. Open issues & key decisions
 4. Risks & mitigations



Problem Space



Solution Space

Component 1: Features & Scope

- An overview of what you are building
- Provide an organized and prioritized list of features
- Walking through a description of your key features
- Discuss what you're not building (or saving for a future release) if relevant
- At a high level, what's included in version 1 vs. later versions?
- What's the roll out / testing plan?

Component 1: Features & Scope

- Some standard things to cover:
 - Is there a mobile version?
 - What is the platform approach?
 - How are you handling internationalization?
 - What are the entry points for this feature? And how are you thinking about user onboarding?
 - Is the feature a premium feature? How will it be priced and packaged?

Component 2: Key Flows

- Show some mocks of key user flows, or link to a prototype of the experience
- Show enough of a click through where people can walk away with a reasonable understanding of how the product works
- It is helpful to organize these around certain user journeys or use cases
- Work with your engineers & designer to ensure you've gone into enough detail and covered critical edge cases

Component 3: Open Issues & Key Decisions

- Gather open questions here while the doc is in progress
- Keep track of key decisions
 - Document decisions so people know that discussions have happened and there's strong awareness of the tradeoffs

Component 4: Risks & Mitigations

- Brainstorm things that could go wrong with your team and partner teams
- For each risk, plan appropriate mitigations

PRD: Launch Readiness

- Components:
 1. Key milestones
 2. Stakeholder checklist
 3. Launch checklist
- A launch plan highlights risks and dependencies that can throw a wrench in timelines or progress

Component 1: Key Milestones

- Identify any relevant milestones that people should know about
- Be sure to state the purpose of each phase, and the criteria you must meet to move on to the next one.

Target Date	Milestone	Description	Exit Criteria
YYYY-MM-DD	<input checked="" type="checkbox"/> Pilot	Internal testing with employees only	No P0 or P1 bugs on a rolling 7-day basis
YYYY-MM-DD	<input type="checkbox"/> Beta	Early cohort of 100 customers	At least 10 customers would be disappointed if we took it away
YYYY-MM-DD	<input type="checkbox"/> Early Access	Invite-only customers from sales	At least 1 win from every major competitor
YYYY-MM-DD	<input type="checkbox"/> Launch	All customers in current markets	Measure and monitor

Component 2: Stakeholder Checklist

- Project may have unintended legal consequences or important marketing implications, and this checklist is intended to flag the right stakeholders at the right time
- Checklist:
 - Make a go-to-market plan
 - › What is the go-to-market? What is this product or feature's positioning? It's pricing and packaging?

Component 2: Stakeholder Checklist

- Checklist:
 - Make a go-to-market plan
 - Build your product in the right way
 - › Data: Do we have all the logging we need? How will this impact company level KPIs? Are you introducing new data models?
 - › Platform: Are you introducing new functionality that we'd want to add to our Web or Plugin APIs? Could this break any existing integrations?
 - › Globalization: Are you launching in multiple countries? Understand the localization and translation process
 - › Security & Legal: Are there security risks we should be aware of? Are you exposing new API endpoints? Or are you changing anything to do with Authentication, Sign in, or Sign up? Is data flowing to a new vendor or outside of production? Are we collecting any data that we did not already, or are we using any data in a manner that we did not already use it in?

Component 2: Stakeholder Checklist

- Checklist:
 - Make a go-to-market plan
 - Build your product in the right way
 - Build teams who ultimately touch your user
 - › Customer Support: What is the impact on existing users? What kind of materials will the support team need in order to be able to respond to customers? Will new learning material be needed or updates to existing documentation?
 - › Sales: What is the impact on existing customers? How will the sales team leverage this product or feature in future sales? Do you need sales enablement materials?
 - › Partnerships: Will this product or feature impact other external partners?

Component 3: Launch Checklist

- A list of considerations you want to make before the launch:
 - Rollout plan: Are we turning this feature on for everyone immediately?
 - Engineering: What is the bug backlog looking like? How's performance looking? Are the feature flags working? How is flipping it on, and at what time? How is monitoring the logs on the first day?
 - Globalization: Has all of your content been translated in time?
 - Data: Have you implemented sufficient tracking in order to measure success, risks and impact on user behavior for the new feature? Is all the logging in place? Have you created dashboards that will populate on launch day and beyond?

Component 3: Launch Checklist

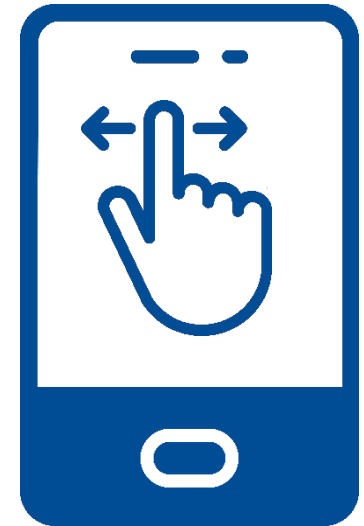
- A list of considerations you want to make before the launch:
 - Growth: If you're running this as an A/B test, has the experiment been properly configured?
 - Product marketing: Is the blog post ready? Are any other communications created and prepped for distribution? What is the communications to the beta group once it's live to everyone? Is there any additional PR/press that needs to be done?
 - Support: Has support content been updated? Has the support team been trained? Has any additional content been finalized? Is the support team aware of the roll-out plan and are there clear communications if some users are experiencing the feature but others aren't?
 - Sales: Has the Sales team been briefed and trained?

Feature Strategy

Driving Adoption and Customer Preferences

Driving Adoption

- Sometimes, seemingly great products are not adopted as expected
- Helpful to understand what are the factors that influence new product adoption
- Criteria for product adoption:
 1. Product must provide a discernible advantage
 - › The bigger the gap, the greater the benefit, the greater the likelihood of adoption
 2. Simplicity
 3. Compatibility
 - › Does this fit with what I already have?



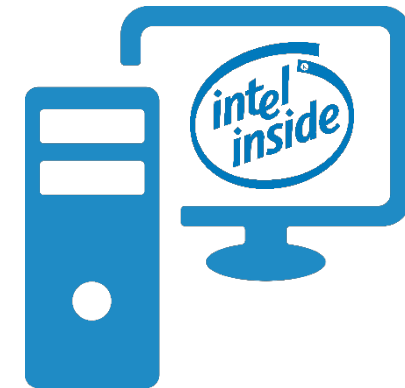
Driving Adoption

- Criteria for product adoption:

1. Product must provide a discernible advantage
2. Simplicity
3. Compatibility
4. Social Consumption
 - › Observable
5. Risk



- › What matters is not what your product is, but what people think about it
- › The risk that people perceive it to have
- › Mitigating perceived risk is important



*Products live in the minds of
customer*

Mind of the Customer

- Products come to mean what consumers feel that they mean
- Products come to function in the way that consumers believe that they should function
- Products come to have associations that consumers decide to associate with them
- You have to be constantly razor focused on what is it the consumer perceptions are about your product

Driving Adoption

- Criteria for product adoption:
 1. Product must provide a discernible advantage
 2. Simplicity
 3. Compatibility
 4. Social Consumption
 5. Risk
 6. Divisibility (Pushing for change)
 - › Offer incrementally in the product
 - › Freemium model



Customer Preferences

- Why do people engage in value exchange?
 - Because they have an affinity towards something that you're offering something that solves a problem that they have
 - We call that a preference
- Communicating preferences:
 - Asking questions
 - Observing behaviors
- Computerized techniques for processing open ended responses available

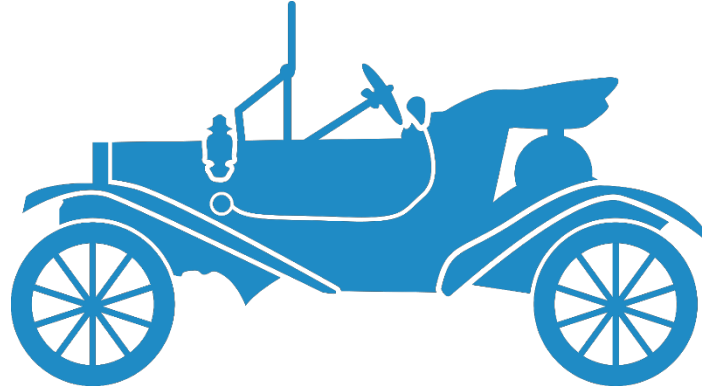
Customer Preferences

- Easy preferences: Preferences that people can express
- Hard preferences:
 - Ones we feel uncomfortable expressing
 - › Clear in the consumer mind internally, but do not express it
 - › Psychology of impression management – customers lets you see what they want you to see
 - › Internal preferences drive people's decisions
 - Latent preferences
- Think as a social scientist
 - “What drives customer behavior?”

Latent Preferences

- Preferences that people have, but they cannot introspect and retrieve them with any kind of fidelity
- Sometimes they have the preference in them but they never had a chance to express it, or they never had an option in front of them, that would allow them to express it
- Do not have a sense of what they want, but once they see it, they know that that's what they wanted

“



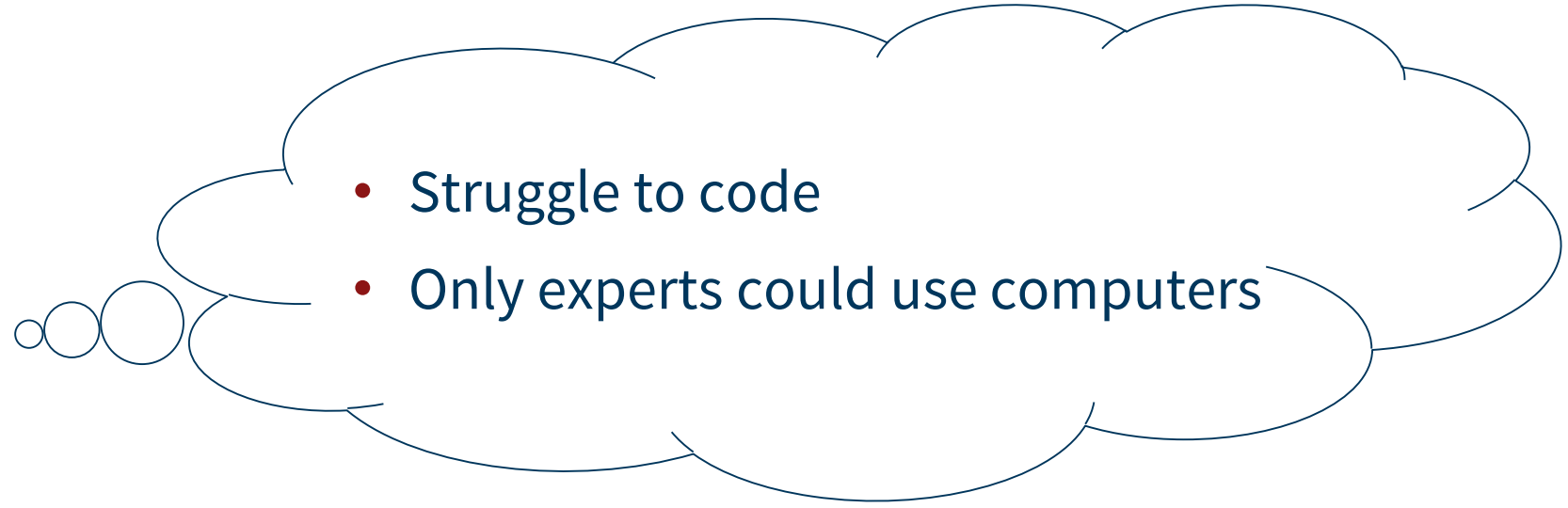
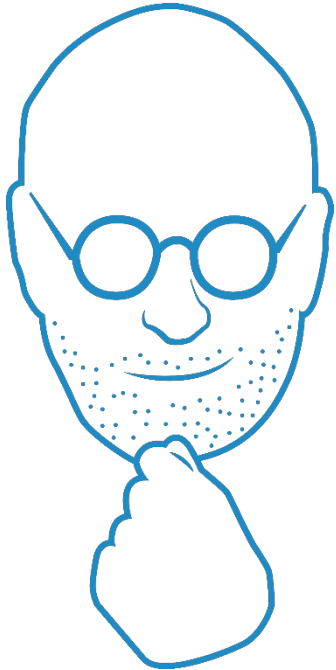
If I had asked people what they wanted, they would have said
faster horses

- Henry Ford

”

Latent Preferences

- Sometimes these preferences may be rooted in the culture we come from, or in our childhood
- We cannot explain this latent preferences or ask people about them



Latent Preferences

- If you are able to create a product that meets latent preferences or meets latent needs, you are often able to create emotional connections with people
- In order to find those latent preferences, it requires observation
 - You will not get them in a survey
 - You will not get them in a computerized analysis
 - You have to go out and observe customers and understand what the needs are, that they cannot easily express

Feature Strategy

Airbnb Case Study: Launching a New Mobile App

Product Strategy Recap

- Tools
- Prices
- Services

Three Parts of PRD

- Problem Alignment
- Solution Alignment
- Launch Readiness

Problem Alignment

1. Background

- Connection of the product, to the product strategy, and to the company strategy
- “Build a loyal and thriving host community” → Provide best in class tools
→ Host success team created → Invest in tools

2. Problem statement

- *“I don’t use the mobile app because I like Airbnb to work properly. If I use it, things seem to get messed up. If you’re in the middle of anything and it freezes, you don’t know what got completed. It’s sketchy.”*
- Need to ensure app is trustworthy

Problem Alignment

3. High level approach

- Revamp the mobile app for hosts
- Remove inefficiencies
- Revamp inbox, calendar, and host stats

4. Goals & non-goals

- Goals
 - Host NPS goes up
 - Certain mobile usage goes up, with others go down
 - How hosts should feel (immeasurable goal)
- Non-goals
 - Increase installs of the mobile app
 - Increased retention
 - Increased revenue
 - Give hosts more listings

Problem Alignment

5. Assumptions

- Mobile usage is going to keep going up
- Hosts will continue to rely on their mobile app
- Hosts want to be able to do as much as possible on their app, and on the go

Solution Alignment

1. Features & scope

○ Features

- Improved inbox
- Improved calendar usability
- Updated stats page

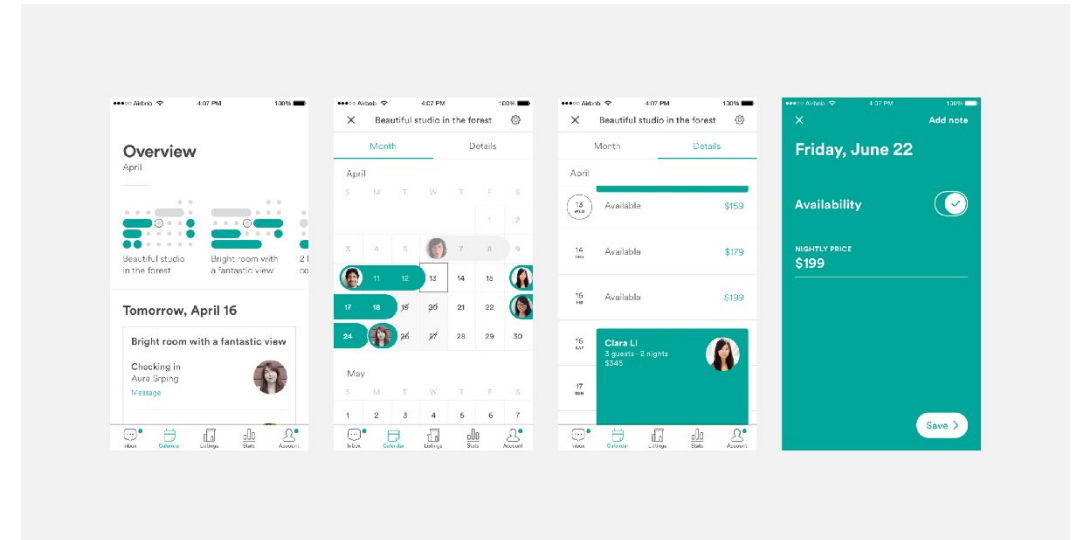
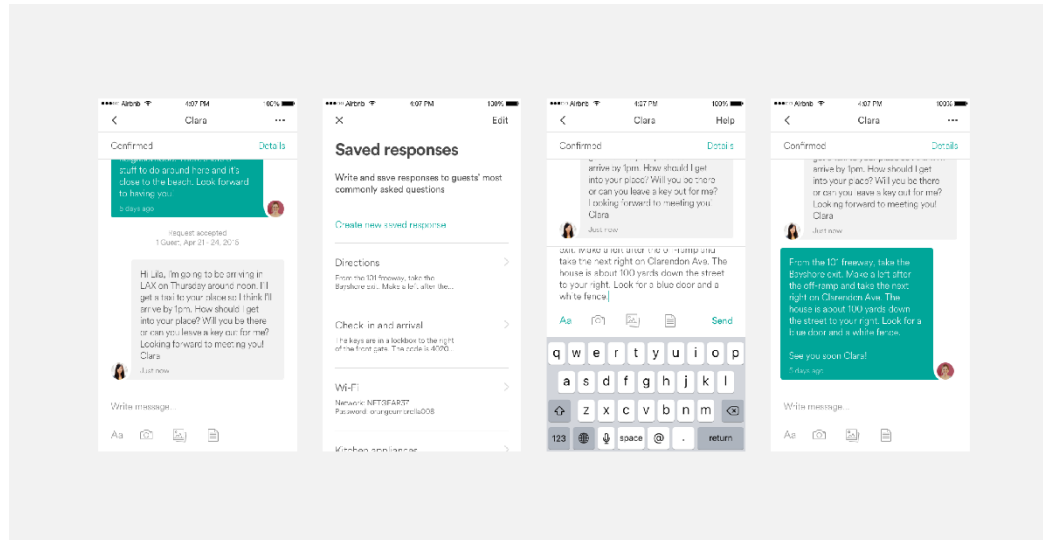
○ Scope

- Limited calendar
- Limited statistics page
- V2: Additional educational insights

Solution Alignment

2. Key flows

- Revamped inbox with saving messages
- Revamped Calendar



Solution Alignment

3. Open issues & key decisions

- Split the host portion of the app
 - Decided not to build a standalone app
- Document key decisions

4. Risk & mitigations

- Complete in a short timeline

Launch Readiness

1. Milestones

- Worked backwards to figure out the key milestones
- One way door project
- Getting confidence - logging data early, select rollout

2. Launch checklist

- Engineering sitting in a “war room” to monitor usage update real-time and update last minute hot fixes

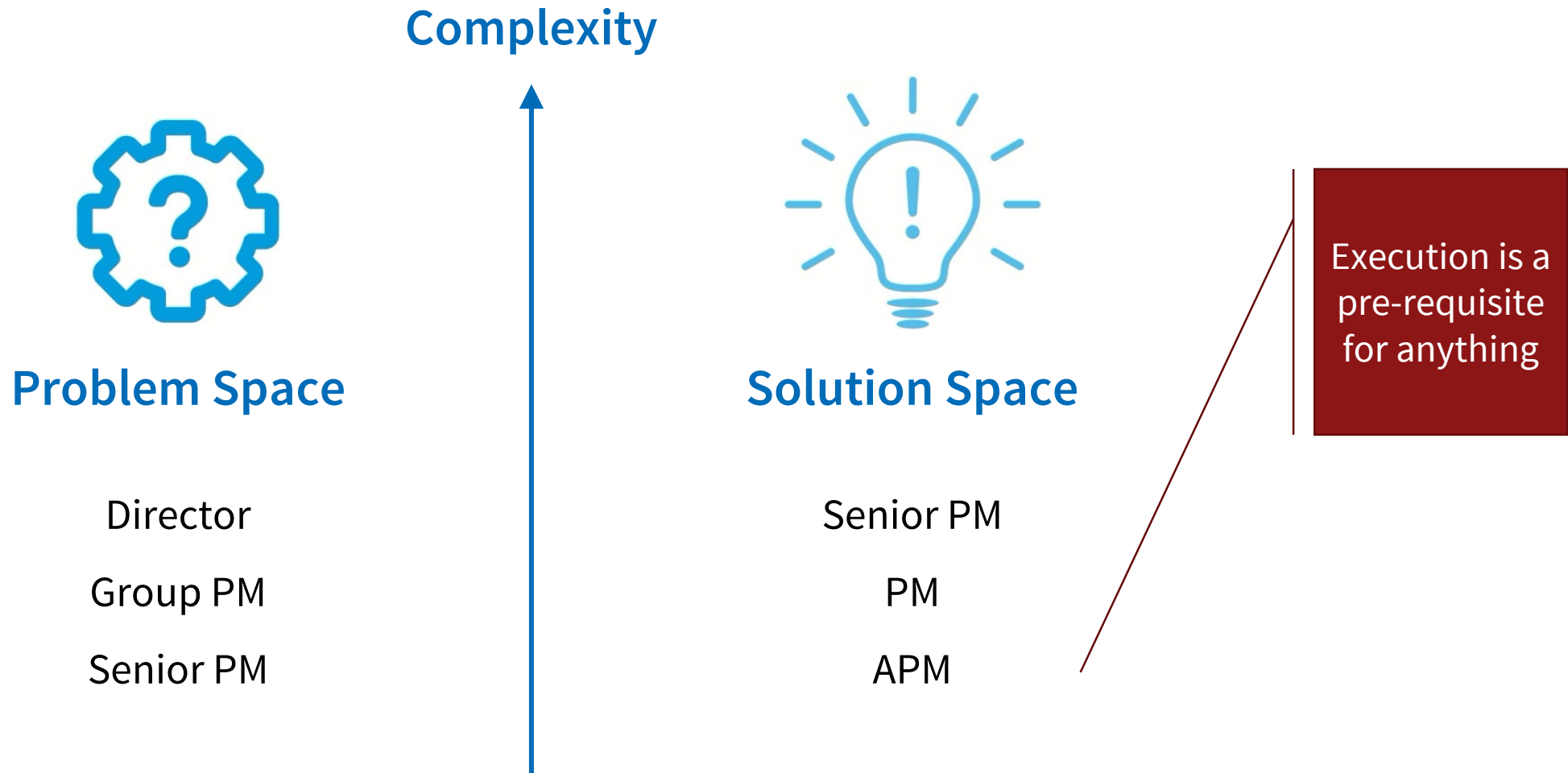
Execution

Execution as a PM

Key Responsibilities of a Product Manager

- Product lifecycle
- Building a roadmap
- Vision and strategy
- Execution

PM Career Advancement



Execution as a PM

- One of the most important abilities of mid-career PMs is to play a hybrid role between a leadership and an individual contributor
- As a manager, your team will be focused on execution and you need the skills and knowledge to guide them to success on their projects
- Excellent project management skills are required

Project Management

- Project management is an easy trap to fall into
- Project management is part of the PM job but not the whole job
- Project management work is always a fire and it easy to spend time on
- Do not spend all of your time on project management

Common Methods

- Agile is an iterative approach to delivering a project
 - Adaptability
 - Higher velocity
 - Expense of clarity on the final product and on the deadline
- Waterfall is a sequential and linear process
 - Requires significantly more planning work up front than agile
 - Is less flexible
 - Results in better predictability
- There is no “one right methodology for everyone”
- Focus more on cross functional responsibilities and collaboration than on a specific project management methodology

Execution

Roles and Responsibilities

Functional Areas

- Most modern software companies have 3 major functional areas:
 - R&D
 - Go-to-market (GTM)
 - General and administrative (G&A) and operations

Go-to-Market

- Getting products into the hands of customers
- Usually made up of a marketing team and a sales team
- May include other functions as well like growth or product marketing
- The primary responsibility is to take products the company produces and get them into the hands of customers

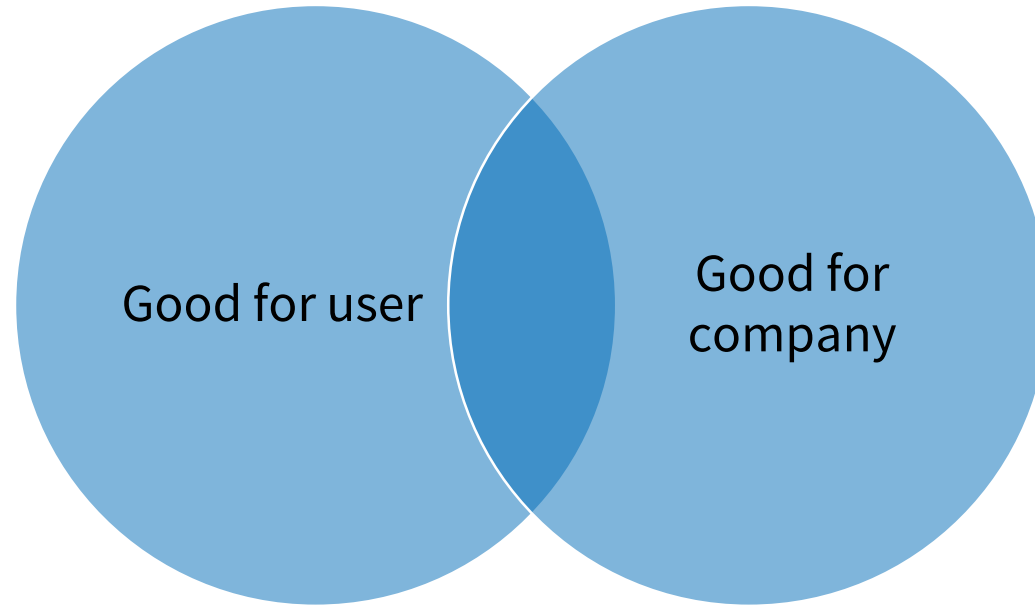
General and Administrative

- Functions that are necessary to run a business
- May also be an operations team that does things like customer success or support

Research and Development

- Usually divided into 3 primary functions:
 - Product Management
 - Design
 - Engineering
- There can be others functions like user research, product operations

Product Management



- Primarily focused at the intersection of the customer and the business
- Figure out who is our customer, what problem are we solving, why is it important, why is it at the intersection of things that matter to the customer and to the company
- Very focused on *who* and *why*

Design

- Primarily focused on how we should solve a problem
- PMs define a problem before pairing up with a designer to figure out how to solve the problem
- Downstream of product on most projects
- UI vs. UX design
- Brand design or marketing design
- Focused on the *how*

Engineering



- Focused on actually building the product
- Take the requirements outlined by product and design and write code to turn a spec into a reality
- A collaboration between engineering, product and design at every step of the process

Engineering: Individual Contributor (IC)

- Focus on completing engineering work
- Spend most of their day writing, reading, and editing code
- Focused on long blocks of productive time
- Primary role responsible for making software
- 5-10 IC engineers for every PM / designer
- 5-10 IC engineers for every engineering manager or lead

Engineering: Engineering Manager (EM)

- People manager of the engineering team
- Very people focused:
 - Spend a lot of time on careers, leveling up skills, 1:1s, and people management
 - Spend a very significant amount of time on hiring and interviewing
- Hire and retain an excellent engineering team and to keep that team happy and productive

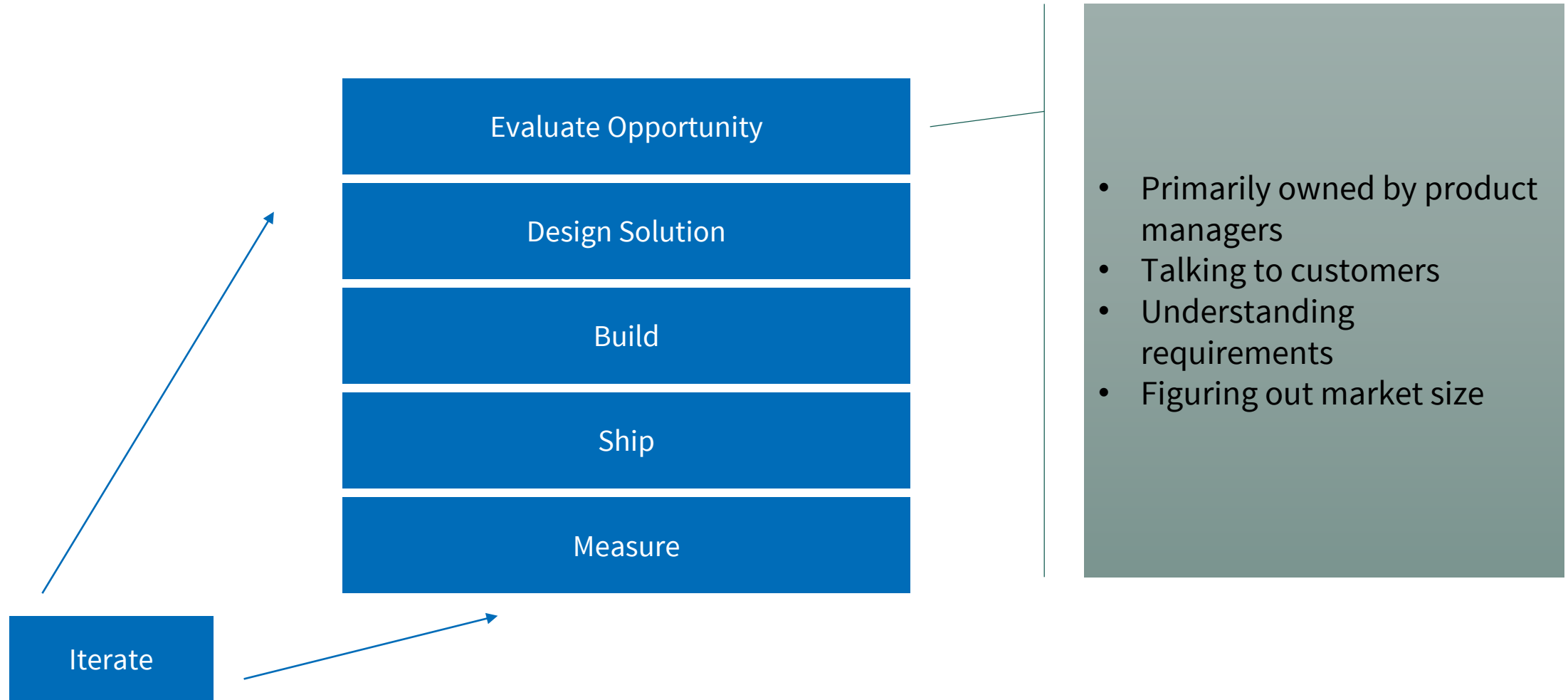
Engineering: Technical Lead (TL)

- Focused on how projects are implemented and how they should be executed
- Responsible for things like architecture, and significant engineering decisions
- Play a major role in translating requirements into reality
 - Work with the team to translate a blueprint into an actual plan complete with details, dates, and timelines for execution
- A strong focus on technology and implementation and often hold a leadership role in execution with a team

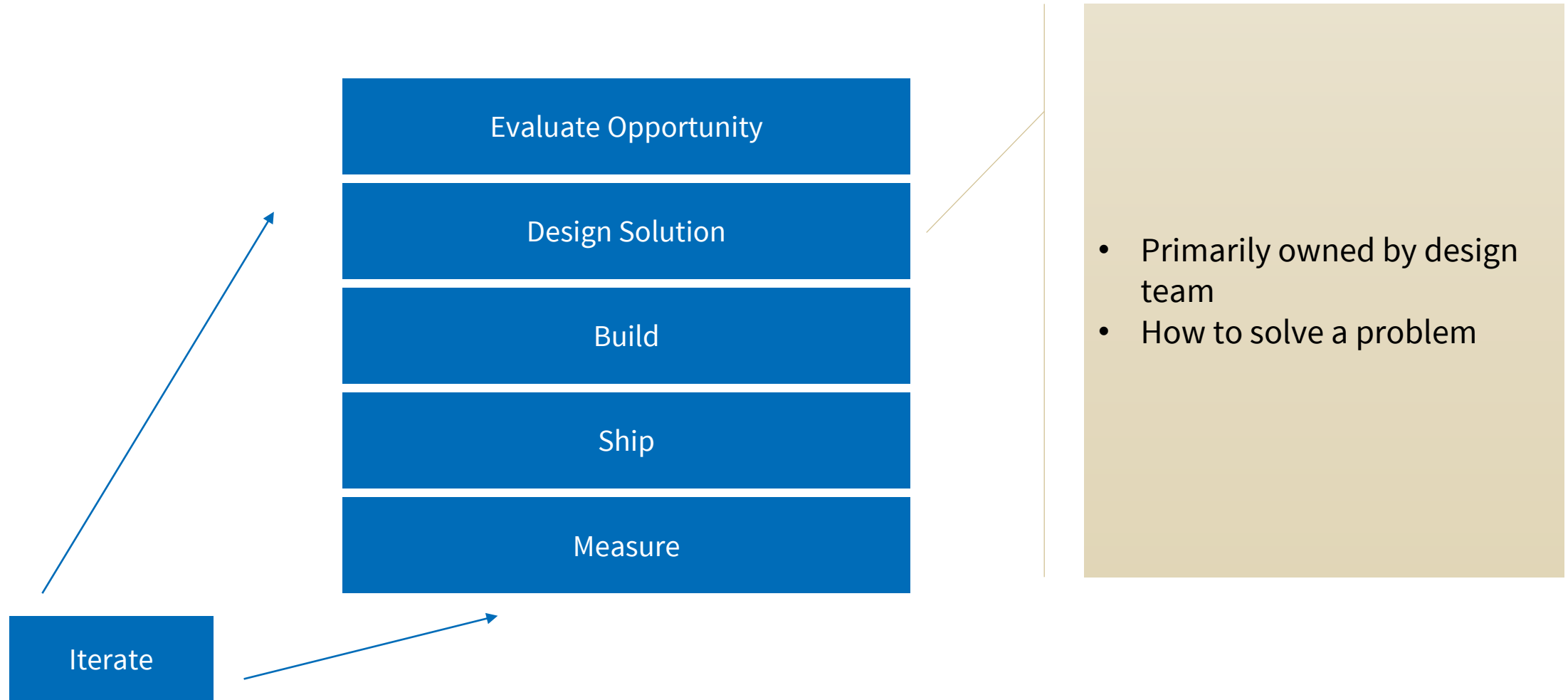
Engineering Manager vs. Technical Lead

- Engineering Manager : An actual title in an organization chart
- Technical Lead: Not always an actual title - can rotate between projects
- In some companies, EM and TL are the same person, in other companies, they are separate
- Technical lead is often a stepping stone to an Engineering Manager job
- Two roles should be able to act for each other
- EMs are primarily about *people* and TLs are primarily about *projects*

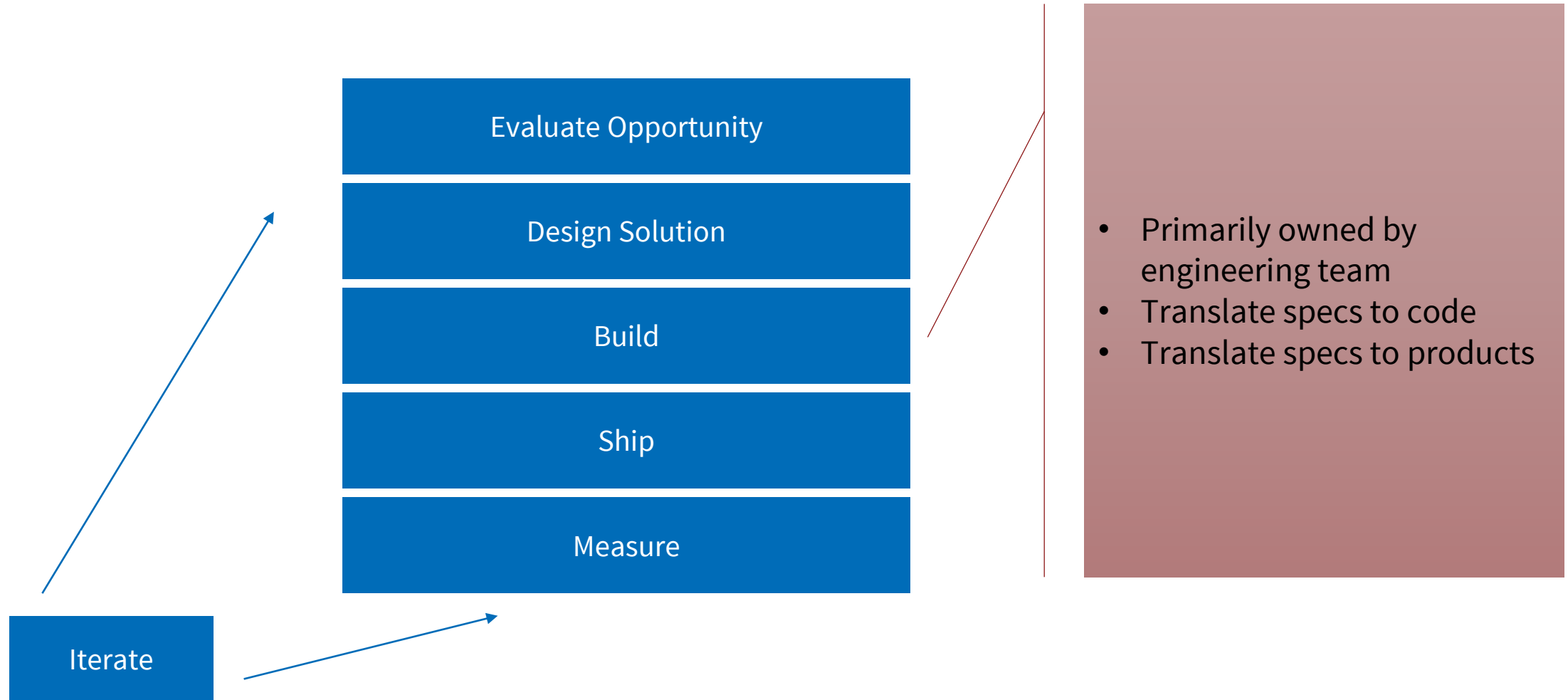
Product Lifecycle



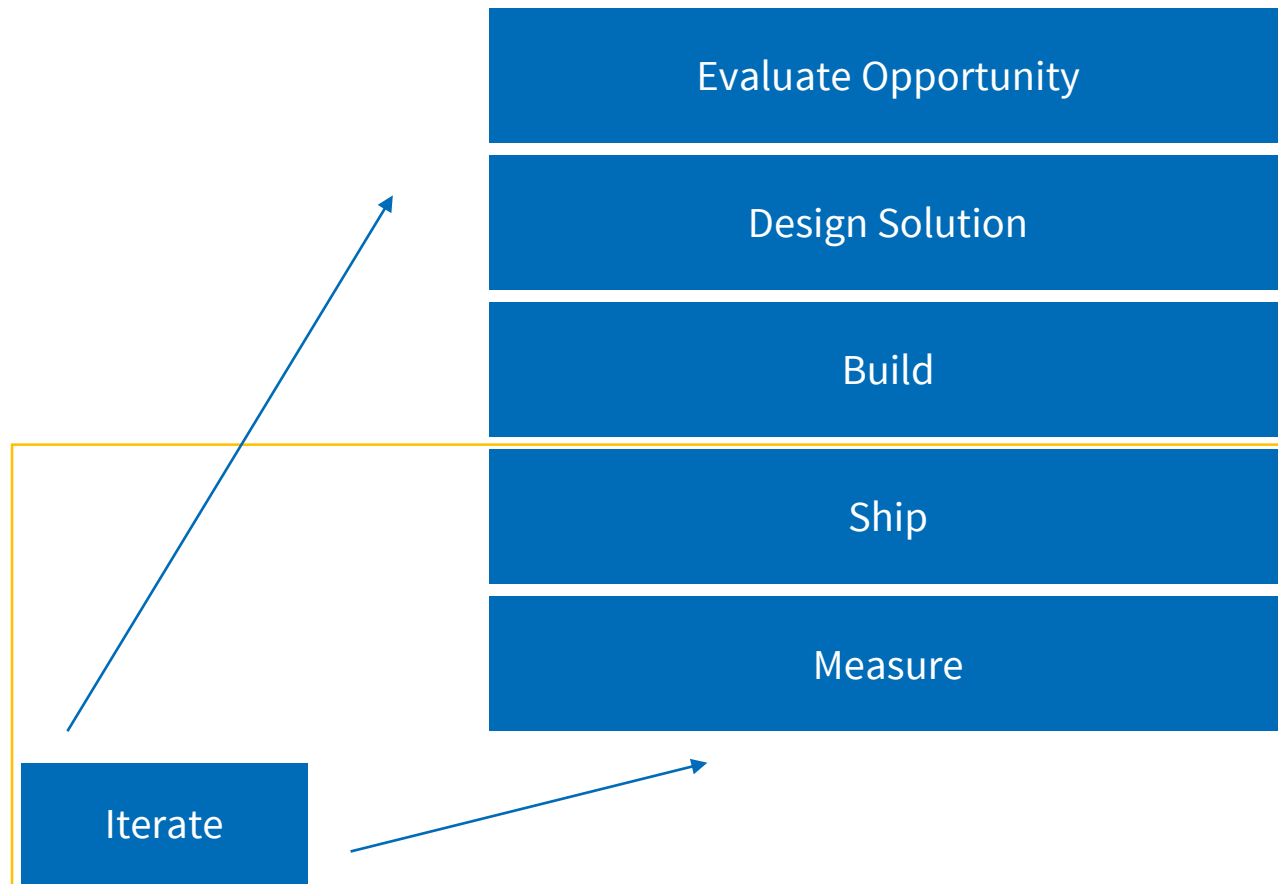
Product Lifecycle



Product Lifecycle

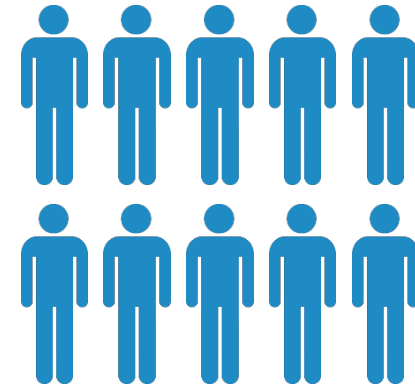


Product Lifecycle



- Involve multiple teams
- Sometimes shipping is owned by product management team or marketing team
- Measure can be owned by product management team
- Iteration is usually owned by product management team

Invoicers Example



- B2B company focused on helping small businesses generate invoices for their customers and then collect payments
- Example:
 - A local gardening business service 10 customers a week
 - Invoicers makes software and sells it to a gardening business which helps them generate these invoices correctly for customers

Invoicers Example

- A new project starting to “collect payments from customers after they’ve been invoiced”
 - When a customer is emailed an invoice, they can click a button in the email and pay the company directly online all through Invoicers
 - Invoicers can collect a small percentage of the payment
- How does this map to the roles we discussed and the product lifecycle?

Invoicers – Product Manager

- Balance this project against the other projects in the company
- Understand if there is a customer need
- Build a business case
- Create a Product Requirements Document (PRD)
 - Outline who is the customer, what are the goals, what problem are they solving, why it's important, and why it's something the company should work on
- If there is alignment that this is a priority, the PM would start working with a designer to figure out how to solve that problem

Invoicers - Designer

- Already have a crystal clear understanding of what problem they are solving and why it is important
- Establishing design constraints, thinking of many possible solutions, pruning those solutions, and then choosing the best one
- Create a “Spec” or a “Design Spec”
 - An explanation of how to solve the problem
 - Often includes mock ups or wireframes detailing what the design should look like

Invoicers - Engineer

- Take the project to an engineering manager or a tech lead
- Identify who will work on this project and who will help lead it
- The TL will lead a process to decompose the spec into different parts
- The TL will help understand how many people can work on the project productively and work with those people to come up with estimates for the project completion date
 - Create a “Technical Spec” which is an engineering implementation focused document on how to build this feature
- The team of engineers would get started working on the feature

Execution

How to Run an Operational Cycle

Defining Operational Cycle

- Cycle : Repeated cadence that the company uses for planning and execution
- Three common examples:
 - Vision and strategy cycle
 - Objectives and key results cycle
 - Operational cycle

Vision and Strategy Cycle

- The purpose of the exercise is to produce goals and plans which the organization will figure out how to accomplish
- Usually lead by the CEO and the executive team
- Participation from cross functional leaders across the organization
- Once per year or biannual
- Annual planning or fiscal year planning

Objectives and Key Results (OKR) Cycle

- OKRs come originally from Intel in the 1980s, and were popularized more recently by Google
- Set clearly defined goals
- 3-5 key results that will be used to measure progress on the objective
- Objectives should decompose the vision and strategy
- Key results should be clearly measurable
- Quarterly, biannually or yearly
- Quarterly planning

Operational Cycle

- The smallest unit of planning
- A team level cadence
- Often hear this described as a “sprint” inside of a software company, but not every company uses this phrasing
- Usually driven by the PM
- Short cycles - Between 2 weeks and a month
- Operate a few different cycles in parallel
 - Sprint planning, quarterly planning, and yearly planning all at the same time
- The base unit of doing work at a company

Things to Remember: Operational Cycle

- Words like “operational cycle” are not coined terms in the industry
- Most companies will use words like “sprints”

Operational Cycle Methodologies

- Agile
 - Scrum
 - Waterfall
 - Kanban
-
- The most common methods are Agile and Waterfall which represent two different ends of the planning spectrum

Agile

- Highly iterative
- Defining work in short intervals
- Rigorous about tracking work velocity

Waterfall

- Planning heavy process
- Map out every stage of a product and all the dependencies before starting
- Know exactly what needs to be completed and in what order

Agile or Waterfall

- In reality, most companies use a hybrid approach that is focused on practical outcomes
- Not prescriptive about one methodology vs. another
- This course will focus on what we've seen in practice
- Often loosely modeled on the Agile methodology but does not follow the exact format or process outlined in the Agile manifesto
- We would suggest thinking of those methodologies as academic frameworks and what focused on in this class is what we usually see in practice

Sprint

- A sprint is the operational cycle for typical software company
- A bounded period of time
 - A plan to do a certain amount of work
 - Executes on that work
 - Checks how they did against the plan
- Most technology companies have something like a sprint but may not follow the exact agile guidelines

Sprint Duration

- Most organization run sprints anywhere from 1 week to 1 month
- How do you choose the right length?
- Sprints are a balance between a few different axes:
 - Planning vs. doing
 - Commitment vs. flexibility

Planning vs. Doing

- How much time does the organization spend planning to do work vs. actually doing the work
- Frustrating to do “work about work” instead of the actual work itself

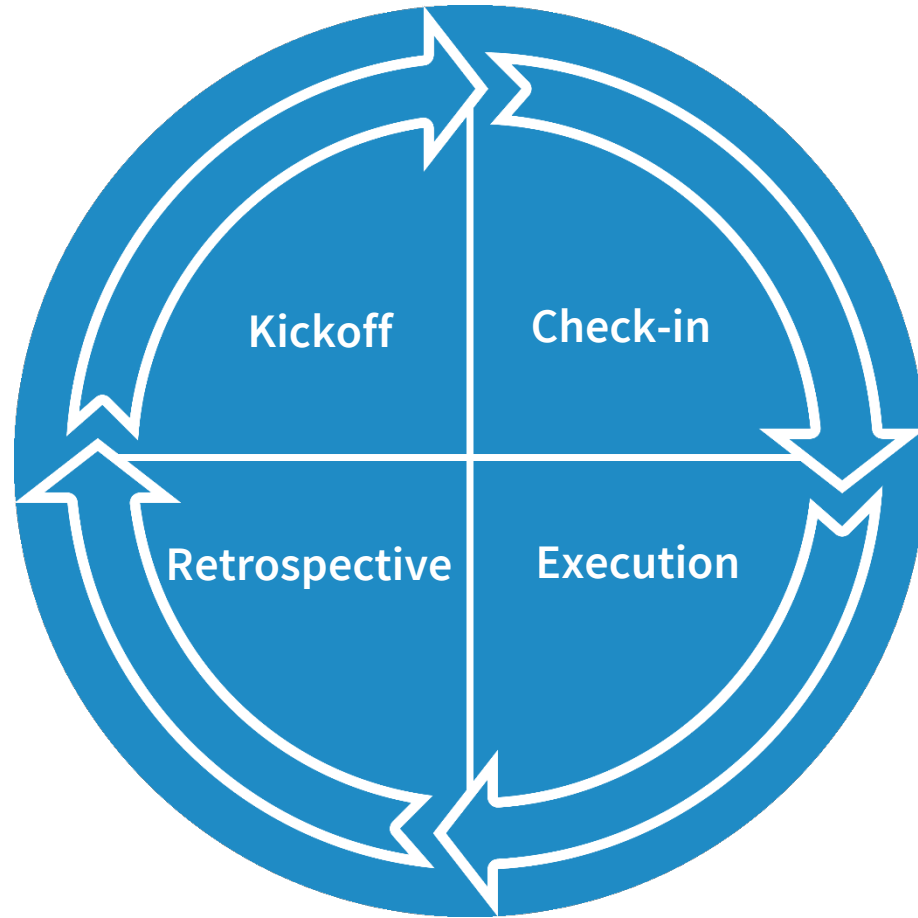
Commitment vs. Flexibility

- Do not change what you are working on after starting
- Treat sprints as sacred to prevent thrash on a team

Sprint Duration

- There are forces pulling sprints to be both longer and shorter
- A good rule of thumb is 2-4 weeks for most software companies
- Having different sprint cycles for different teams usually causes problems

Key Components of a Sprint



Kickoff

- Sometimes called a “sprint planning meeting”
- It should be the very first thing you do when you start a new sprint
- Attendees: The whole cross-functional team working on a project
- Purpose:
 - Context: Why are we doing what we’re doing, what if anything has changed
 - Prioritization: What are the most important things we need to do next and why
 - Assignment: Who is working on what, what dependencies do they have, how can we maximize throughput
 - Commitments: What are we going to accomplish this sprint

Kickoff: Roles



Product Manager

- Focus on context and prioritization

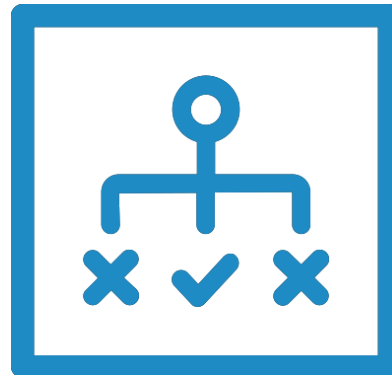


Engineering Manager /Technical Lead

- Focused on taking the prioritizes outlined, finding the right people to work on them, and pushing for clarity on what can be done by when, and making sure teams are unblocked

Kickoff: PM & Engineering Partnership

- This is one of the key partnership moments for PMs and TLs/EMs
- Must be on the same page about priorities and projects before this meeting
- Often helpful to align before the meeting



Kickoff: PM & Engineering Partnership

- Establish a consistent format for the meeting
 - PM to go first to set the context on the company and the priorities and then hand it over to engineering to turn the priorities into staffing assignments, estimates, and commitments
- Do a pre-meeting with the engineering lead
- Make clear that the team leads are all aligned

Kickoff: Tips

- Be prepared
- Be aligned
- Know your role
- Facilitate
- Listen and adapt

Check-Ins

- To resolve any blockers to progress and to track the actual progress against an expected progress
- Can surface issues the team needs to resolve
- Most commonly takes the form of a daily 10 minute meeting called a “stand-up”
- Participants: Usually everyone on the team
- Usually project oriented instead of team oriented

Check-Ins

- Format:
 - What they got done
 - What they are going to do today
 - What they need from other people
 - Do they feel on track
- Not always used – can be used when projects are in critical stages like close to milestones or close to launch or when things are rapidly changing
- Goal is the minimum number of meetings

Execution

- Heart and soul of the sprint is doing work
- The PM should be available for anyone on the team to answer questions or clarify points about the project
- Key things:
 - Responsive
 - Write things down
 - Get into the details

Retrospective

- An opportunity to understand:
 - What went well
 - What did not go well
 - How you can be better next time
- The best ways to improve your velocity as a team
- The purpose of this meeting is to make the next sprint better
- Participants: Usually everyone on the team, same group as the sprint planning meeting

Retrospective

- Format:
 - Usually at the end of the week
 - An opportunity to show their work
 - Open and transparent communication
 - Focus on how we get better as a team and everyone should contribute
 - Make it clear that everyone can and should talk
- Separate identifying what could be improved from suggestions for improvement

Execution

Cross-functional Collaboration and Culture

Key Elements to Collaborate

- Bring them to the table early
- Leverage their expertise
- Remember your complimentary role

Collaboration with Designers

- Bring designers to the table early
 - Making sure they are working by your side
 - Explore the problem space together
- Leverage their expertise
 - Defer to their knowledge in design and design patterns
 - Briefly describe key flows
 - Give your designer as much as autonomy as possible
- Remember your complimentary role
 - Designer represents the user and PM represents both the user and the business

Collaboration with Engineers

- Bring engineers to the table early
 - Involve them at the very beginning of defining the problem statement
 - Engineers understand the feasibility and constraints
- Leverage their expertise
 - Engineers are responsible for crafting a feature technical spec
- Remember your complimentary role
 - PM bring desirability constraint from the user and viability constraints from the business
 - Engineers think about feasibility constraints and think about the most optimal solution

Creating Amazing Culture

1. Celebrate wins
2. Acknowledge good work
3. Foster communication
4. Learn from mistakes
5. Cultivate a culture of appreciation

Celebrate Wins

- After you launch a project, celebrate the milestone with your team
- Could be something as simple as a launch email or more intricate as a project team lunch
- Shows team members how fun it is to work as a group to overcome a challenge together

Acknowledge Good Work

- Give credit to team members
- Give visibility to your team
- If you ask your team to present on your behalf, you will increase empowerment, motivation, and good will

Foster Communication

- Understand how others in your team prefer to be communicated with
- No right answer
- Key is for the team to know how others in the team want to be communicated with, and to establish those norms as a group

Learn from Mistakes

- Do a team retrospective where the entire team asks itself what can be done from a process standpoint to improve the team
- Ideas that will improve execution velocity and the team's product, and will improve the team's culture
- Make sure everyone in the team feels heard

Cultivate a Culture of Appreciation

- Appreciate team members who help out with tasks
- Allows team members to appreciate one another
- A culture of appreciation will help you execute better together as a team

Execution

Connecting Operational Cadence and Roadmaps

Key Responsibilities of a Product Manager

- Product lifecycle
- Building a roadmap
- Vision and strategy
- Execution

Sprint Plan vs. Roadmap

- Roadmap:
 - A living document
 - Prioritized list of themes and projects
 - Does not show which projects are being worked on, and who should work on those projects
- Sprint plan:
 - A committed time interval for accomplishing a fixed set of work
 - An execution plan of who will do what and when
- Roadmap feeds into the sprint plan but is not the same as your sprint plan

What Are We Optimizing

- Engineering time is extremely valuable and scarce
- Make sure that engineers are always able to productively work on high impact things
 - Make sure **priority** is clear
 - Make sure projects are **ready** for engineering

Chicken and the Egg

- The goal of a sprint should be to work on the highest priority items
- Ideally you want to know what you are working on well before the sprint starts
 - If you write a spec too far in advance, things can change and you end up throwing away your work
 - If you write a spec after the formal prioritization meeting, it is often too late for the engineering team to start

How are you supposed to balance advance planning and flexibility within a sprint plan?

Assumptions

1. No changes during a sprint
2. Sprints should be short
3. Committed blocks of time

Roadmaps Work Around Sprints

- Roadmaps need to work around sprint plans
- The right time to change your roadmap is when you are starting a new sprint
- Try and keep your sprints inviolate and only consider reprioritizing work at sprint boundaries
- PMs should be thinking ahead to the next sprint

How Far Ahead Does Each Group Think

Product Managers:

- Preferred approach is for PMs to be thinking at least 2 sprints out
- The PM should be laying the prioritization case for items roughly 2 sprints away
- Very common for mid career PMs to be focused 1-3 months out

How Far Ahead Does Each Group Think

Design Team:

- Usually thinking 1-2 sprint out
- Make sure we have great solutions to projects before the engineers are ready
- Often use sprint boundaries as a deadline for getting through design reviews

How Far Ahead Does Each Group Think

Engineering Team:

- Mostly focused on the current sprint
- Executing on the prioritized projects and specs which is primarily focused in the moment

How Far Ahead Does Each Group Think



Product managers work on product reviews
2 sprints away



Designers work on specs for projects 1 sprint away



Engineers focus on existing projects in the
current sprint

Filling a Sprint



Fixed Team Size

- Think of the sprint as a jar
- Given a fixed team size with a certain set of skills, there is a certain amount of work from the roadmap that can be completed
- Pulling things directly from the roadmap in priority order are almost never possible
 - Projects require certain people or certain skills to get started and those skills are already in use

Filling a Sprint

- If required people are in use:
 - Find the next highest priority on the list that the backend engineers can work on
 - Or fill a few days with a medium priority project while the frontend engineers wrap up so that everyone can start the project mid sprint
- A key concept at the intersection of sprint planning and road mapping is how to efficiently use all the time in a sprint

Big Rocks and Little Rocks

- Big rocks are large projects which are designed to have significant impact on the customer or the business
- Little rocks are small projects which are tweaks or optimizations to round out rough edges
- Big Rocks usually will take weeks, months, or quarters
- Little rocks will take hours or days

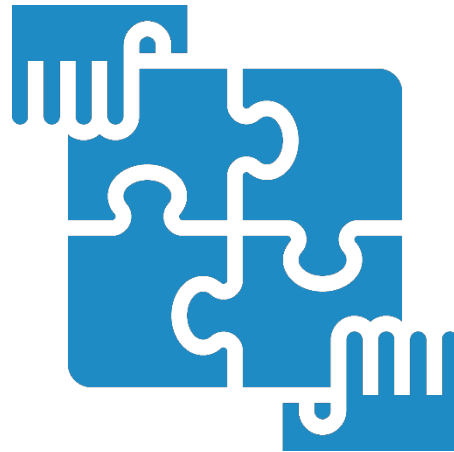
Filling a Sprint

- Filling the jar with only large items, there will still be lots of room left over inside
- Usually impossible to fill a sprint only with big rocks
- A good sprint will contain a mix of big rocks and little rocks so that the time and skills of the whole team are used efficiently
- May end up skipping down your roadmap a few rows to find small rocks



Filling a Sprint

- You are looking to practice the art and the skill of fitting projects together like puzzle pieces so that overall velocity is high and the team spends most of their time on high priority projects while maintaining team morale at the same time



Small Rocks Backlog

- Have a set of small rocks ready to go
- Don't just work through your priority list from top to bottom
- Before showing up for sprint planning, have both big rocks and little rocks ready to go

Case Study - Pilot

- Pilot.com is a startup that does bookkeeping, tax preparation, and financial back office services for small businesses and startups
- VP of Product Management from 2017-2020
- Responsible for the product management and product design disciplines
- Set operational cadence

Early Days – Operational Cadence

- Company with less than 50 people
- Wanted an operational cadence that would move quickly with minimal planning overhead
- Opportunity everywhere from a project perspective
- Focused on execution velocity
- A single R&D team across product, engineering, and design of ~10-20 people
- Chose a monthly cadence :
 - Enough time to ship meaningful things
 - Give people enough time to work with teammates

Early Days – Roadmap



Product Managers

- Do whatever it took to get existing work out the door
 - Working with engineers and designers to resolve open questions
 - Figuring out rollout plans
 - Communicating with sales and customers
 - All the other pieces required for high performing execution
- Used sprints as an opportunity to set deadlines for the upcoming set of work
 - Look ahead to the next sprint and make some rough guesses about what we would work on

Early Days – Roadmap



Product Managers

- Use the sprint to take ideas through product review and then design review to be ready for the next sprint
- 2 week before the end of the month (halfway in the sprint), the PM team would start thinking about prioritization for the following sprint
 - Gather requirements from the exec team, stakeholders, and customers, and make sure the priority order
 - A small meeting with the leads of the engineering function, operational function, and other leaders at the company to make sure all are aligned

Early Days – Roadmap

- On the first day of the month, kick off a new sprint
- Meeting with the whole EPD (Engineering, Product, Design) organization
- Share the priorities
- Think about what we could accomplish in this cycle



Early Days – Roadmap

- PMs bring context and priorities
- Engineering leaders bring staffing and estimates
- Get alignment before the meeting
- Agree on the course of action for the month and then get started



Early Days – Roadmap

- Check in roughly few times a week
- Close the loop on projects at the end
- Change anything in the planning process for the next time
- Measure goals and metrics on items to see if the team achieved the objectives instead of just “doing the work”

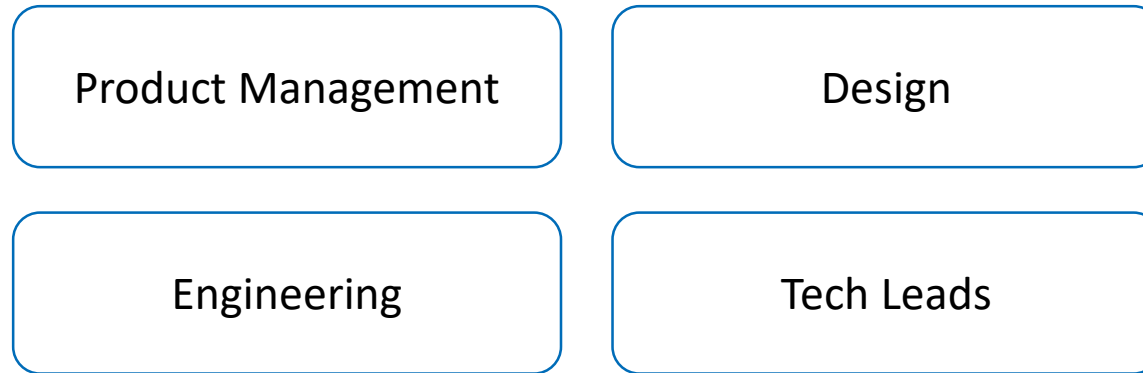
Larger Company – Operational Cadence

- Needed more complex planning with partner teams
- Formed more permanent teams within EPD
- 4 teams focused on different parts of the product
- Moved towards a quarterly operational cadence instead of monthly
- Similar process of requirements gathering, alignment, kickoff, execution, and closing the loop but a longer time horizon
- Agree with teams on goals that were important and they were responsible for figuring out what to work on and why
- This pushed agency and responsibility down to the teams

Larger Company - Roadmap

- From a roadmap perspective, PM team would constantly gather ideas for the roadmap throughout the quarter
- About a month before the next quarter, the PM team would start to create a roughly prioritized list
- About 2 weeks before the quarter, PM team would make sure that the prioritized list is finalized and get alignment

Larger Company - Roadmap



- When the sprint started, each team would have a kickoff meeting talking about the priorities for the quarter
- Have check-ins with each team every 2 weeks to track progress against quarterly goals
- Projects teams would decide if they wanted to run standups

Change Is to Be Expected

- How change is very much to be expected at businesses of every size and stage
- Companies reorganize how they do work and their teams structures frequently; for startups at least once per year
- Adaptability to change is very much a part of the PM role

Recap

- Execution is a foundational skill
- Execution is not the only skill
- Roles and responsibilities within an R&D organization
- Key partner roles
- Operational cycle as the unit of work
- Sprints
- Cross-functional collaboration
- Connected a sprint to a roadmap

Product Growth

Communicating Product to Customer

- Just because you build it does not guarantee the customers will come

How do I best communicate the benefits of this new product to the market?

Communicating Product to Customer

- Questions to answer:
 - What need is your product solving for?
 - For whom is it solving this need?
 - Where does the target audience obtain their information?
 - › Where would be the most natural outlet for them to obtain information about what I am offering?
 - What do they need to know in order to be able to make their decision on whether to purchase your product?

Online Advertisement

- Most common way
- Reaches a large market
- Easier to customize
- Works well
 - if you have a very clear value proposition
 - If you can say something pithy and memorable about your product offering
- Downside
 - Only communicate very little information at a time
 - Target audience's attention is very low – message needs to be quick and memorable



Shoe Manufacturer Example 1



- Specialized for the *functionalities* that runners need
- If the problem I am solving is for highly sophisticated runners who know the science of the nuance of running shoes, the messaging is likely too complex for a banner on a webpage
- Seeking specialized information, and will likely be open to engaging with a knowledgeable salesperson

Shoe Manufacturer Example 1



- May be particular about the types of shoe stores they visit and probably prefer to visit stores with highly knowledgeable staff
- More likely to read up on the latest running shoe trends in runner specific magazines
- One-page ad with a list of features of the new shoes

Shoe Manufacturer Example 2



- All about shoe *fashion*
- Making an association between the sneaker and a particular lifestyle
- Mantra is about living an active lifestyle → utilize dynamic imagery

*The strongest product managers are actually
great **consumer psychologists***

Use of Color

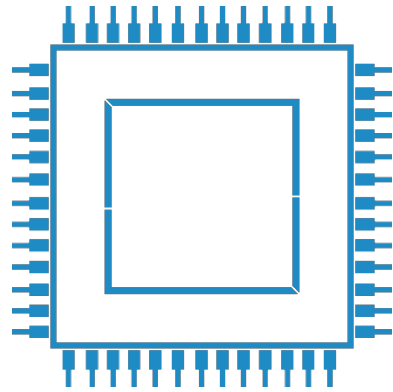
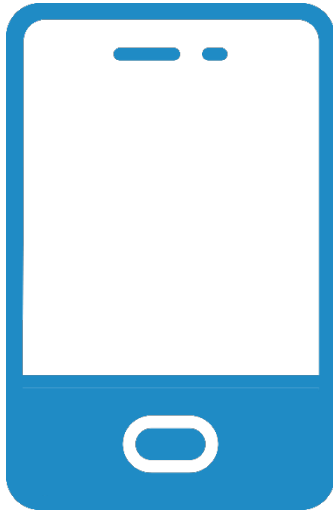
- Product related to trust:
 - Insurance policy or home security system
 - Avoid using the color red
 - Use colors that have been shown to be associated with trust like blues or greens
- Fast food :
 - Use red and yellow to draw attention
- Worth noting that there is not a playbook for making these decisions
- Know your value proposition and your target audience
- When it comes to consumer psychology, there are relatively few hard and fast rules

What Should We Communicate?

- Communicating “solutions”:
 - Better
 - Stronger
 - Faster
 - More affordable
 - More accessible
- Psychological value:
 - More reliant on images and experiential interactions
- Traditionally, the more complex your product or service, the more human interaction is required



Combined Complexity with Simplicity

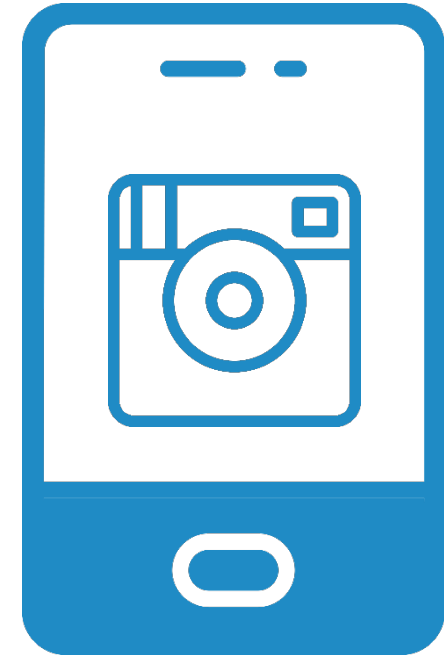


M1 Chip

- Has enormously complex technical features
- Communicates messages about its processing chips and its adherence to specific standards
- Needs to be compelled to purchase using easily understandable features like the camera

Combined Complexity with Simplicity

- Complexity:
 - Charging
 - Process speed
- Easily understandable camera features:
 - Continually improved quality
 - Higher resolutions
 - Better in low light
 - Multiple focal lengths



“Better Pictures”
Shot on iPhone

Influencers

- Types:
 - Ethical influencers
 - Fashion influencers
 - Digital influencers
- Can be a great leveraging point for promoting your product
- Advantage:
 - Often come with a decent following
 - Previously established relationship
- Downsides:
 - Not cheap
 - If your product does not fit with the influencers image, then your marketing will seem inauthentic

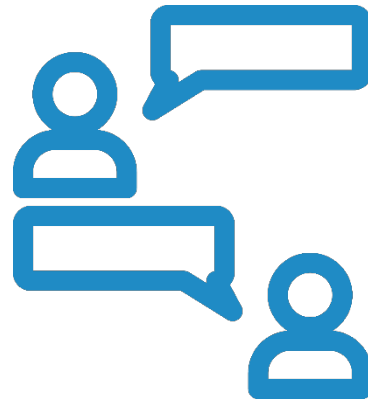
Social Media



- A mechanism to communicate about products and to communicate with customers
- Releases are teased
- Tutorials on how to use products
- Customer testimonials

Sales Force

- A select group of employees
- Typically utilized by business to business products
- Requires more person to person interaction
- Require a strong understanding of the needs of the consumer, as well as the solutions created by the product



Customer Acquisition

- Result of a process of a deliberate journey that you have to walk your potential customers through



- Awareness
- Interest
- Consideration
- Purchase

Product Manager as a Social Science

- A successful product manager is a successful social scientist
- Social scientists study all aspects of human behavior, and typically run experiments to determine how and why people make decisions
- Throughout your product lifecycle, you will have to determine:
 - If a consumer is presented with x, what will they do with y?
 - If they are presented with y, what will they be prone to doing with Z?
- Look at your product and its role in the market, and do your best to decrease the uncertainty around your product decisions

Experiments

- Allows to put people in different situations and see what kind of behavioral outcomes arise
- Can confirm a hypothesis, determine where blind spots exists, or inform the next iteration of your product or marketing strategy

Creating a product is an iterative process

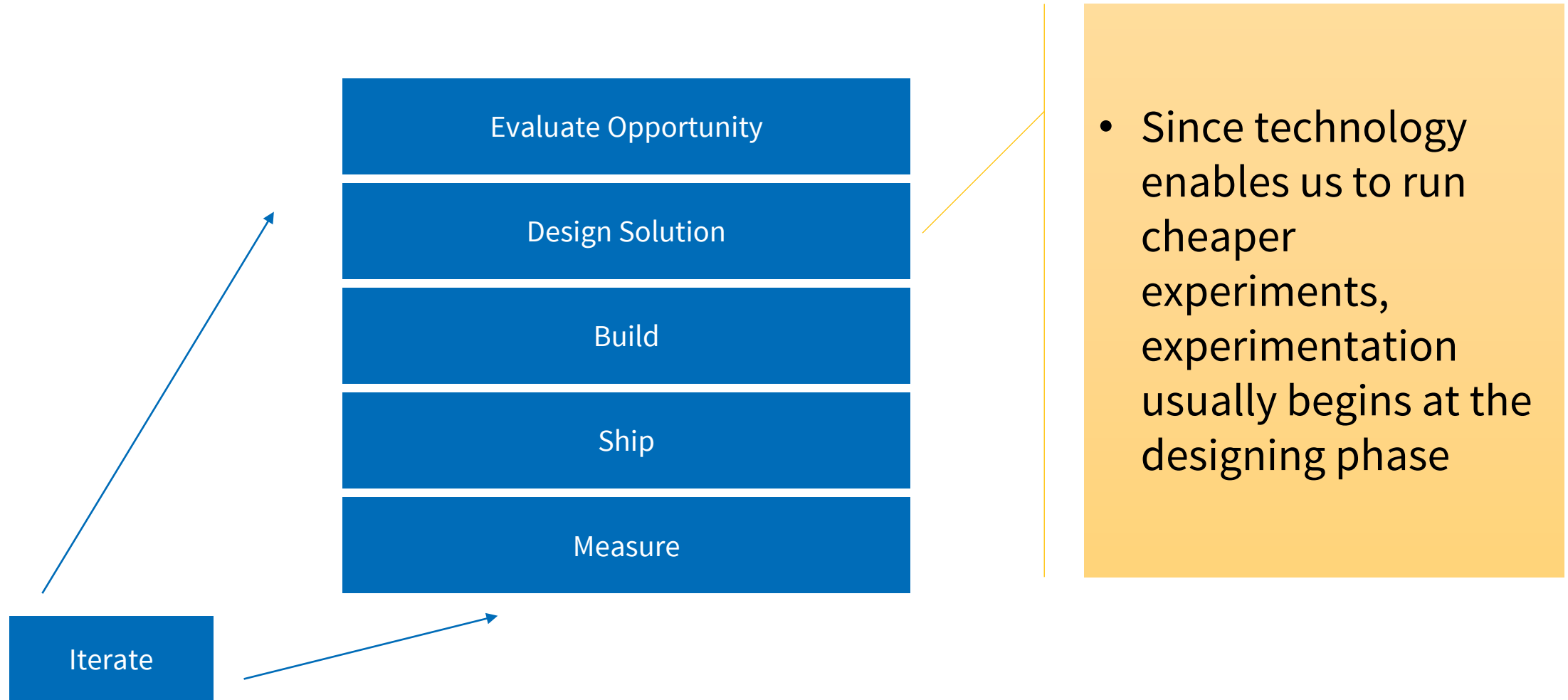
Testing

- Surveys
- Comparisons
- Different types of Ads

Experiment Example

- Facebook platform lets you present different markets with different types of ads
 - Look at click through rates to see how the market is reacting to your product
- Focus groups: Bring people together into location have them actually engaged with the product in one way or another
- The beauty of information technology is that it enables us to run experiments and collect data much more cost effectively than in the past

Product Lifecycle



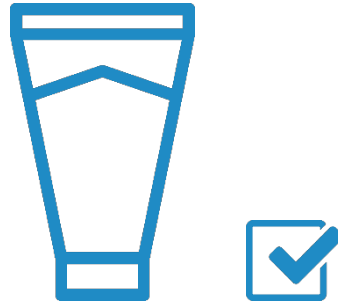
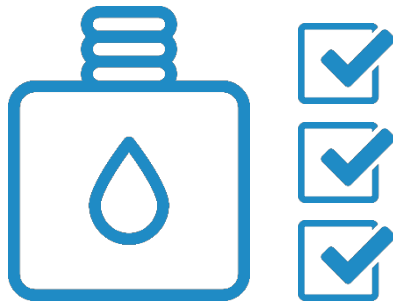
Car Manufacturer Example

- Limited number of colors
- Run an experiment by creating an online color customization tool
- Easy and cheap



Estee Lauder Example

- What containers will customers like?
- Hosted an event and put out creams in different containers
 - At the end of the event, go into her powder room and see which container had the least amount of cream left.



Benefits of Experiment

- Reduces uncertainty
- Informs your decision making
- Increases the likelihood of your product being adopted

Uncertainty

- *Remember: It is impossible to get uncertainty to zero*

“

The unknown unknowns

- Donald Rumsfeld

”

- You just have to be faster than your competition, and experimentation as a product manager makes you faster than the ones who work for your competition

Experiment Pitfalls

1. Not being thoughtful about your experiment
 - Not having a clear hypothesis
 - Each experiment should have a hypothesis, an understanding of how your process needs to work, and to guarantee high fidelity data
 - Need to tie the experiment to a business decision from the very beginning - run an experiment that is designed to address your business problem
2. Wasting resources by running too many experiments
3. Experiments can signal something to the competition

Recap

- Approach experiment as a social scientist
- Experiment is to decrease uncertainty as much as possible
- Hypothesis that ties to a business decision
- Benefits of a well run experiment (appropriate resource allocation, cost effectiveness, and speed to market) overshadow the various potential pitfalls (testing for the wrong things, testing in the wrong ways, misusing resources, and signaling proprietary information to a competitor)

Value a Business

- Summing the total value of cash flows from its customer base
- Firm value:
 - Newly acquired customers
 - The customers that you have already acquired and continue to pay money

Customer Retention

- Considerably more profitable to put customers in the bucket and keep them there
- Bucket with a hole: Consistently losing customers that you've acquired
 - Product not meeting value proposition
 - A competitor that has an advantage over you and your product
 - Changing tastes in the market
- Retention: Convince customers to stay in your bucket and become returned buyers



Average Selling Rate

- Strong brands
 - 60 - 70% chance of selling to existing customers
 - 5 - 20% chance of selling to new customers
- Costs 5 times more to acquire the new customer

Social App Example

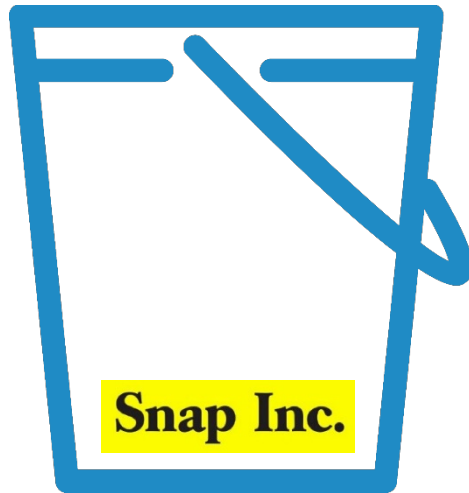
- Extremely crowded
- Constantly working with developers to create a competitive edge to drive people to download their app
- Challenge of the competition still exists
- Constantly having to analyze how your customer base is using your app, and sometimes even your competition's app
- Create features to make sure people continue using your app

Social App Example



- Regularly introduces new filters to decrease the chance of leaks
- Customer downloading app to engage with a specific group or friends in a different time zone
- App only allowing moderate interaction
- App begins to lose its luster
- Product manager realize a potential for a hole in your bucket
- Seek to engage the customer differently

Social App Example



- While you are waiting:
 - See other people's posts
 - See dynamic paid posts
 - See filter options

Anticipation as a PM

- Why does someone want to pay to use my product?
 - How is their usage of my product going to proceed?
 - What do I have to do in order to keep my customers coming back?
-
- Making sure that there is a *continuous* benefit to your user from your product or service is the key point

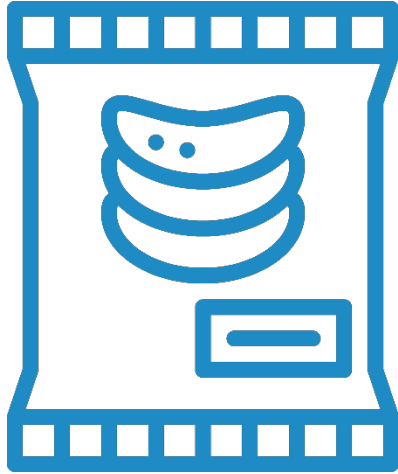
Potato Chips Example



- Why does someone want my potato chips specifically?
- How do I keep them coming back to my potato chips?

What do you have to do to keep them coming back to your bag?

Potato Chips Example



- Answer might be:
 - Unique flavor
 - The way that chips are cooked
 - Experience those chips are associated with

Services Example

- What does the customer do once the contract is up?
- Before two year contract is up, provide bundle deal that includes a device, protection plan, phone plan, and unlimited texting
- Use cross selling and added promotion to retain customer
- The best way to retain people is by creating a product that *meets their needs really well*



Strategic Dimension of Retention



- 10 years later, will not buy the same pair of shoes
- Customer of the brand - create a relationship with the customer
- Product line that evolves with the preferences of their customer

GAP Corporation

- Shows loyalty to the brand
 - Old Navy
 - The GAP
 - Banana Republic
- Each of these stores has a very specific market
- Collectively captures the consumer throughout the consumers evolution - age wise, economically, and experientially



Loyalty Programs

- Retention through loyalty programs
- The longer customers stay with the product, the more perks the customer will get
- Commonly used with airlines
- “Gettable pot” - usually hard to reach, but conceivably reachable

Growth of the Subscription Models

- Continuous streams of new offerings and “curated” content
- Element of exclusivity
- Platform originals have exclusive rights

Retention Bonuses

- Often employed when the customer is paying for a product or service over time, or there is a cyclical payment
- Example:
 - At the end of the lease, the dealership may give you an extra \$750 as a retention bonus

Recap

- Think about ways to get initial customers, as well as to keep them
- Sometimes the reason a customer buys into your product or service is not the exact same reason they remain with it
- Questions to answer upfront:
 - Why does someone want to pay for my product or service?
 - How is their usage of the product going to change over time?
 - What aspects of my product or service, and people's usage of it will continue to make them returning users?
- The best way to retain your customers is by creating a product that meets their needs really well, and creates continuous delight

Course Recap

- Strategy
 - Company Strategy
 - Product Strategy
 - Feature Strategy
- Execution
- Product Growth