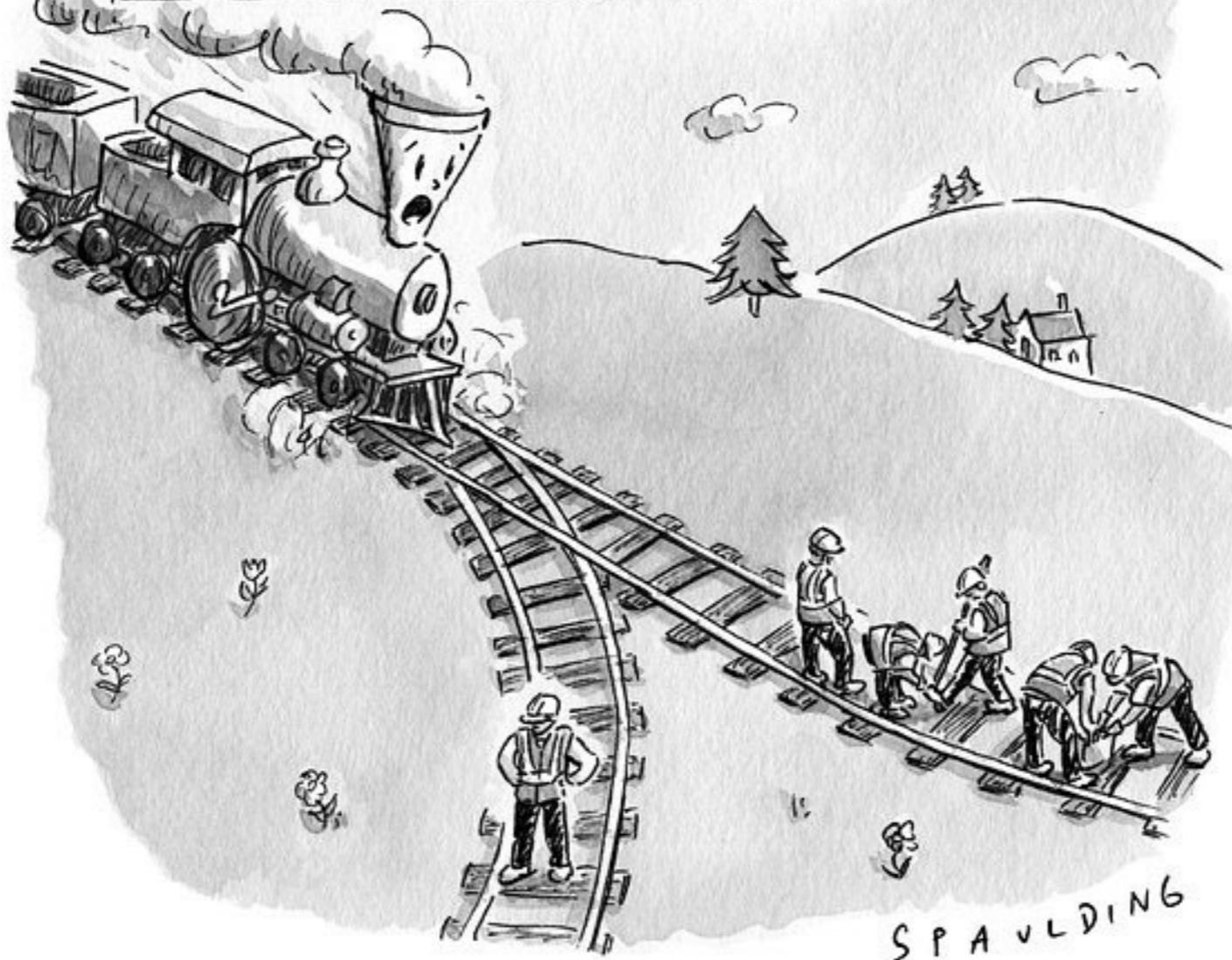


THE LITTLE ENGINE THAT  
FACED A TOUGH MORAL DILEMMA



# MINIMUM VIABLE PRODUCT (MVP)

chidi afulezi  
co.founder, aKoma

---

## **MINIMUM VIABLE PRODUCT (MVP)**

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# **LEARNING OBJECTIVES**

- › Explain the purpose and process of building an MVP.
- › Identify various ways to build and learn from an MVP.
- › Identify how to determine if an MVP reaches product/market fit.
- › Develop a MVP to qualify key risks and assumptions.

---

## **WHY MVP**

---

# WHY MVP?

---

## WHY MVP

---



# THE SEGWAY GREAT PRODUCT WITH NO MARKET?

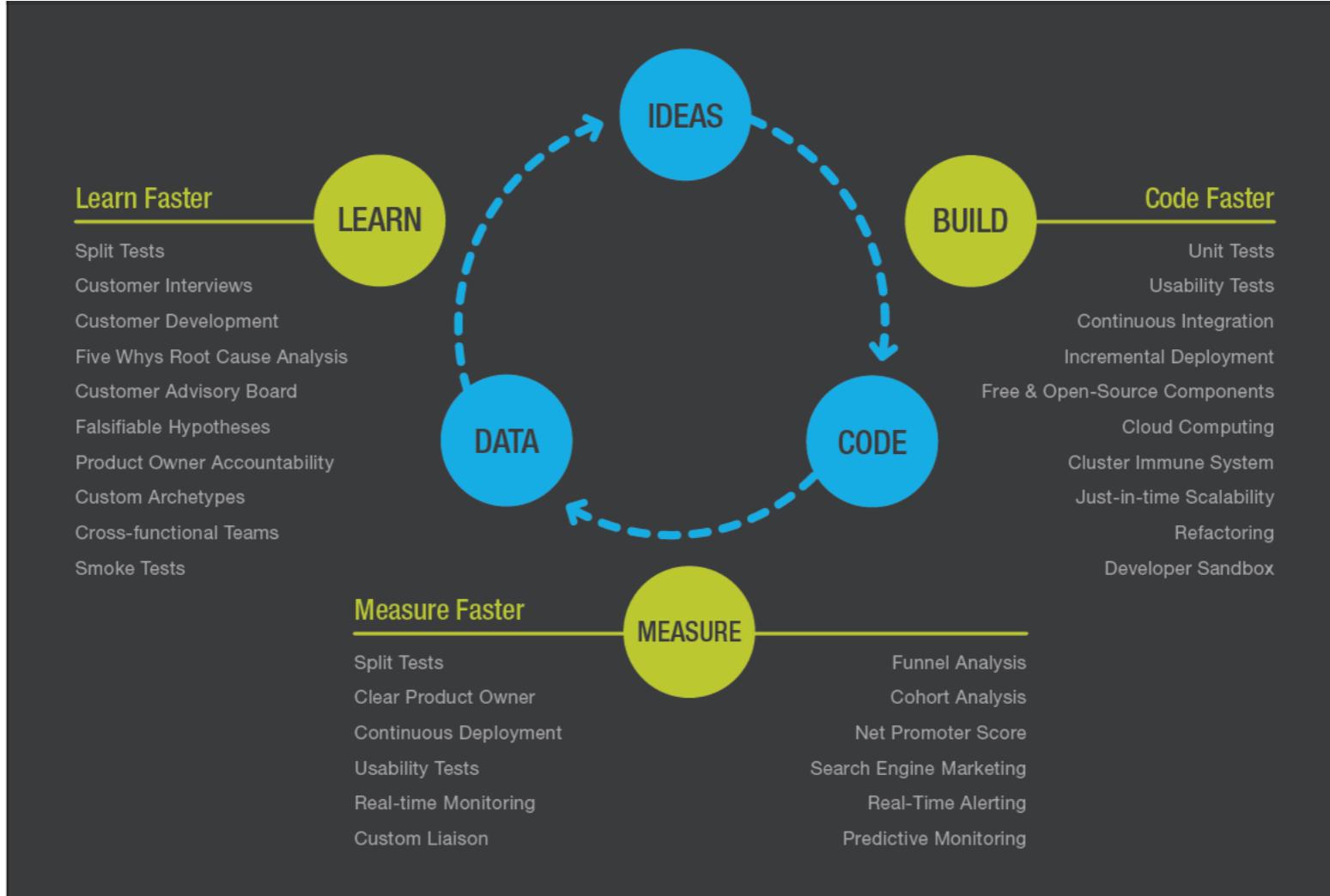
---

## WHY MVP

---

**MAKE SURE CUSTOMERS  
WANT YOUR PRODUCT,  
BEFORE YOU BUILD IT.**

# WHY MVP?



---

**TESTING AND VALIDATING YOUR IDEA**

---

**MVPS**

## MINIMUM VIABLE PRODUCT

---

**“SMALLEST POSSIBLE PRODUCT THAT HAS THREE CRITICAL CHARACTERISTICS: PEOPLE CHOOSE TO USE IT OR BUY IT; PEOPLE CAN FIGURE OUT HOW TO USE IT; AND WE CAN DELIVER IT WHEN WE NEED IT WITH THE RESOURCES AVAILABLE – ALSO KNOWN AS **VALUABLE, USABLE AND FEASIBLE.**” - MARTY CAGAN**

**MVPS**

---

**10**



**MVP**

---



# WHY MVP?

**REDUCE RISK & MAXIMIZE SUCCESS**

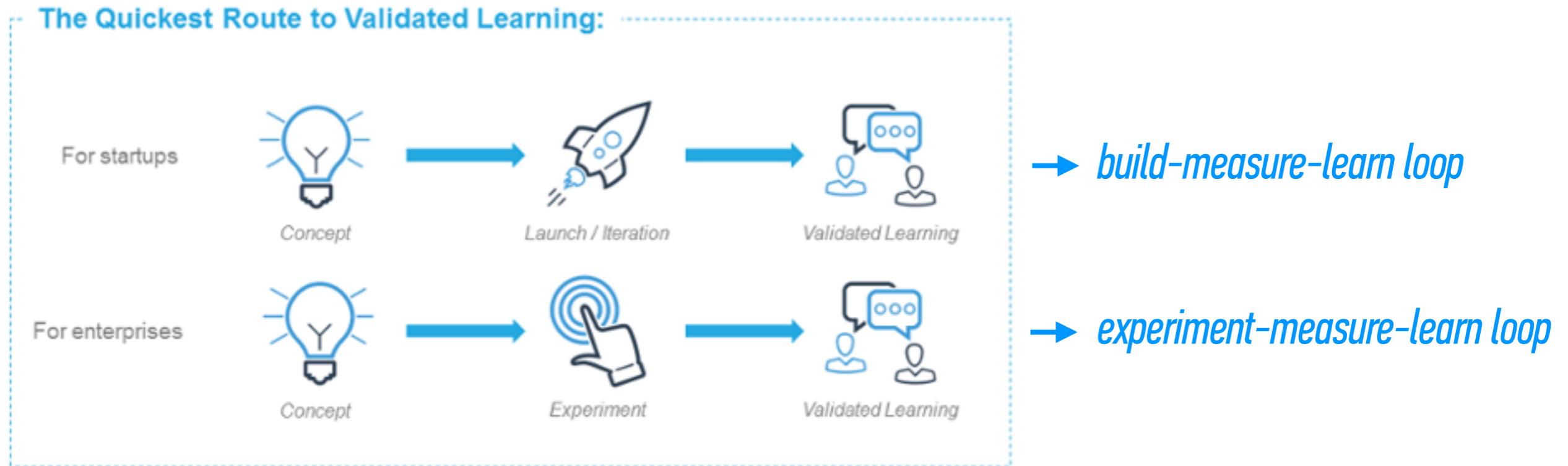
**FASTER FEEDBACK**

**REDUCED OVERHEAD**

**MEASURABLE PROGRESS**

# **MINIMAL VIABLE EXPERIMENT**

**BY FOCUSING ON THE VALUE OF LEARNING RATHER THAN  
BUILDING, ENTERPRISES CAN RE-CONCEIVE MINIMUM  
VIABLE PRODUCTS AS MINIMUM VIABLE EXPERIMENTS  
AND APPLY AN EXPERIMENT-MEASURE-LEARN APPROACH**



- via Nis Frome, *Making the Case for Minimum Viable Experiments*

# ACTIVITY: NOW OR LATER



## DIRECTIONS (15 MINS)

1. Suppose you are building the MVP for Spotify
2. You've identified two main problems to solve:
  - \*Streaming unlimited music at a reasonable price
  - \*Streaming music on mobile without consuming too much data
3. Review the list of features to the right and classify each one as “Now”, meaning they will be part of the MVP, or “Later”.

## DELIVERABLE

Understanding of MVP prioritization

- Search for music
- Create playlists
- Share playlists
- Post the music you’re listening to on Facebook
- Radio
- Mobile offline mode
- Video ads
- Activity Feed
- Private Sessions
- Stations
- Recommended songs
- Ad-free premium service

**MVPS**

---

**DID YOU CHANGE YOUR MIND ON ANY  
FEATURES AFTER THE DISCUSSION?  
WHAT MADE YOU RECONSIDER?**

---

**TESTING AND VALIDATING YOUR IDEA**

---

# MVP IMPLEMENTATION STRATEGIES

---

## MVP IMPLEMENTATION STRATEGIES

---

**YOU DO NOT NEED TO CODE  
TO TEST SOMETHING.**

## TYPES OF MVPS

- Concierge
- Wizard of Oz
- Landing Pages
- Videos

# MVP IMPLEMENTATION STRATEGIES

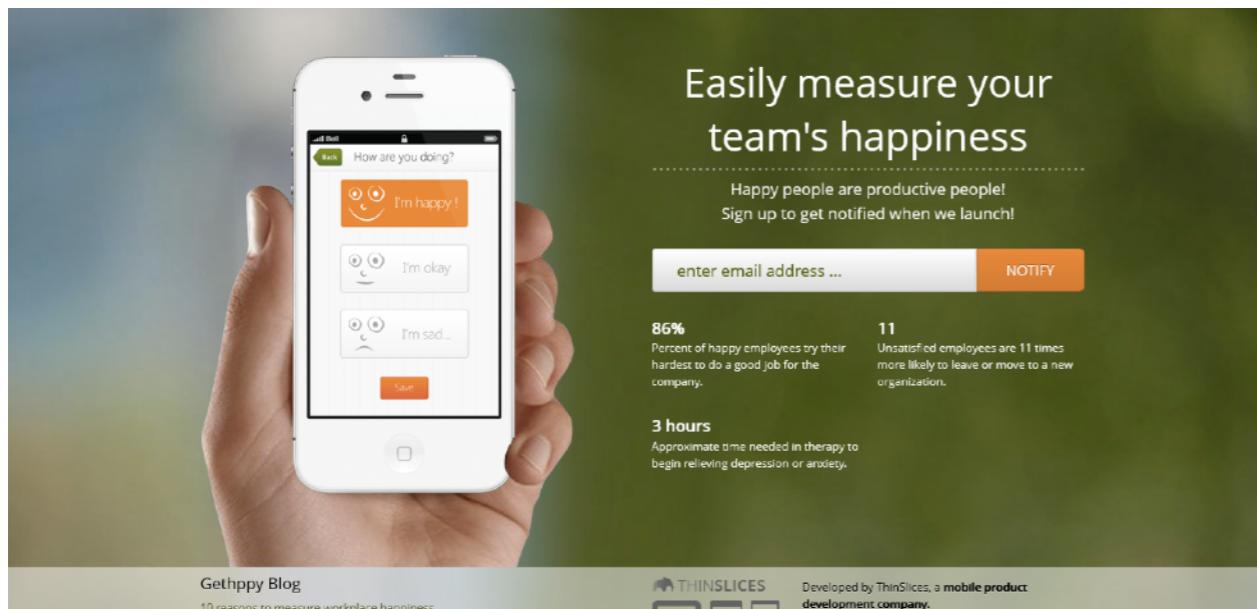
## CONCIERGE

- › Delivering a service manually to the customer.
- › Confirms the end consumer value before investing in automation.
- › Does not scale but proves concept.

The screenshot shows the Groupon homepage with the city set to 'Coventry and Warks'. A specific deal for 'Restyle Cut and Blow Dry With Conditioning Treatment for £15 at Bliss Hair Design (62% Off)' is highlighted. The deal includes a 'Buy it Now!' button, the amount '£15.00', a discount of '62%', and a timer showing '12 Hrs. 28 Min. 53 Sec.' remaining. It also indicates '39 Bought!' and 'Deal is on!'. To the right, there's a large image of a woman with long, dark hair, and text for 'Highlights' and 'Fine Print'. On the right side of the page, there are promotional banners for 'Groupon Getaways', a chance to 'Win an iPad.', and other national deals like winter boots.

# MVP IMPLEMENTATION STRATEGIES

## LANDING PAGE

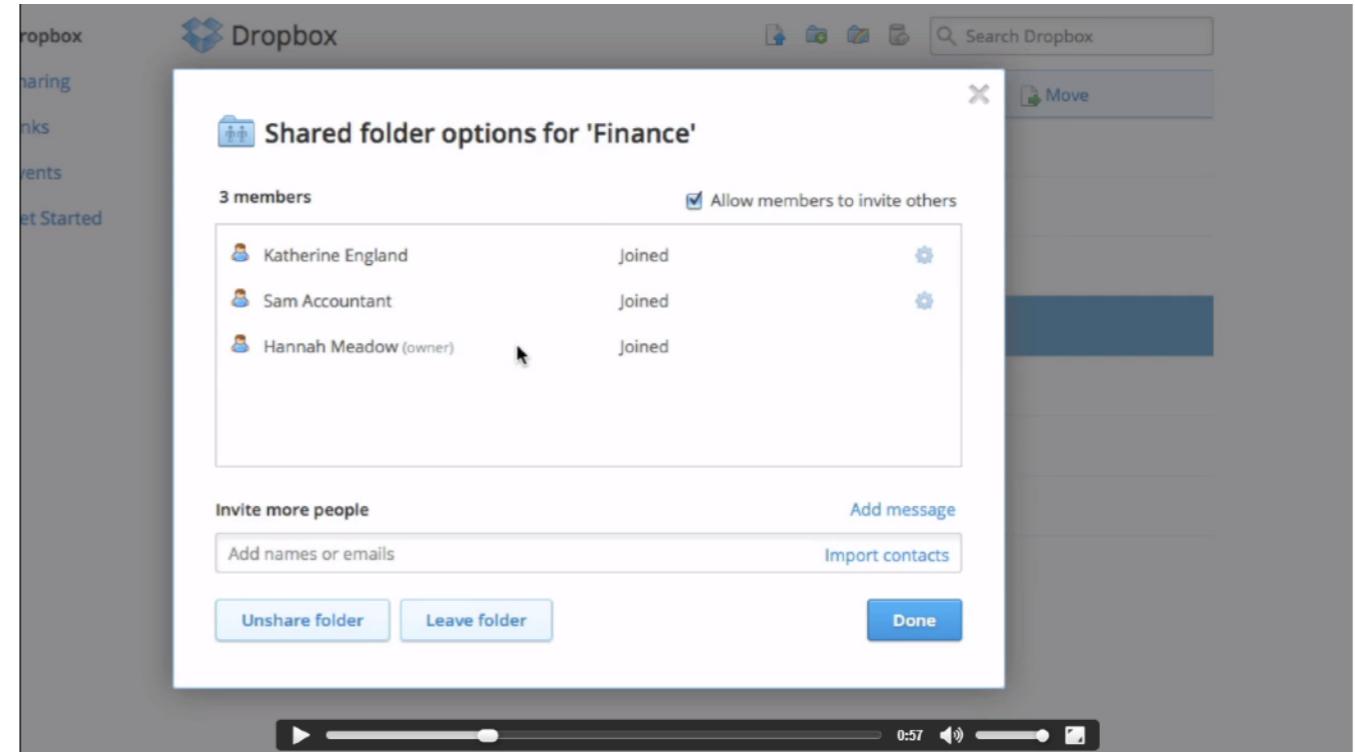


- Proof-of-Concept MVP
- Uses simple conversion method, such as enter email address.
- Prove that users care enough to stay informed before going further.
- Challenge: How to drive traffic?

# MVP IMPLEMENTATION STRATEGIES

## VIDEOS

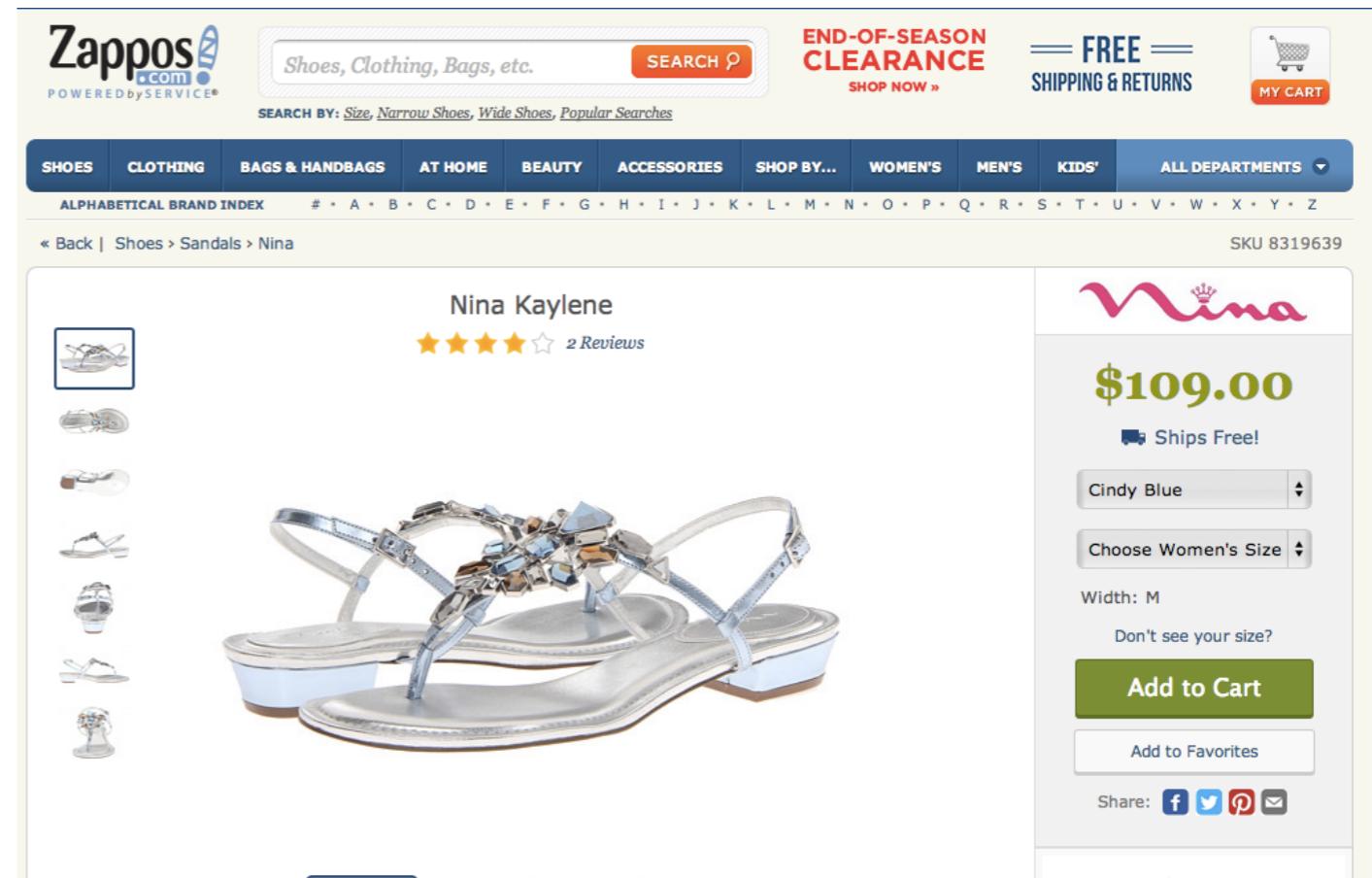
- Used to demonstrate a hard concept.
- Can be pieced together without the technology being completely in place.
- Designers create realistic interfaces to simulate how the product would look and interact.
- Ex: Dropbox



# MVP IMPLEMENTATION STRATEGIES

## WIZARD OF OZ

- Everything appears to be real to the customer, but on the back end it is manual.
- Example: Zappos
- Tests riskiest assumption (buying shoes online) before buying inventory, warehouse, etc.



**WHEN MIGHT YOU BUILD A PROOF-OF-CONCEPT INSTEAD OF A FUNCTIONAL MVP? DOES IT EVER MAKE SENSE TO DO BOTH?**

## DEMO

---

# VIDEO MVP



- Used to demonstrate a hard concept.
- Can be pieced together without the technology being completely in place.

MVPS

---

**WHAT DID DROPBOX LEARN  
FROM RELEASING THIS VIDEO?**

---

**LEARNING FROM YOUR MAP**

---

# **LEARNING FROM YOUR MVP**

**WHAT DID WE EXPECT TO  
HAPPEN IN THE FIRST  
PLACE?**

---

## LEARNINGS FROM YOUR MVP

---

**“THE ONLY METRICS THAT ENTREPRENEURS  
SHOULD INVEST ENERGY IN COLLECTING ARE THOSE  
THAT HELP THEM MAKE DECISIONS.”**

Eric Ries

**WHAT IF YOUR  
HYPOTHESIS IS WRONG?**

**PIVOT, LEARN, AND ITERATE.**

# WHY IS IT IMPORTANT TO PICK A SUCCESS METRIC AHEAD OF TIME?

# lean canvas (\*created by Ash Maurya)

<p><b>The Problem</b></p> <p><b>Top 3 Problems</b> What is the crucial problem faced by your consumers? Capture their central frustration.</p> <p><b>Existing Alternatives</b> Define one clear, direct competitor. Consider the other ways customers can address their problems. What products or services exist as alternatives to what you're offering?</p>	<p><b>Your Solution</b></p> <p><b>Top 3 Solutions</b> What is your solution to consumers' problems? Present the defining elements of your service: what makes it the top tool for addressing consumers' needs?</p> <p><b>Key Metrics</b></p> <p><b>Key Activities You Measure</b> How will you track consumer engagement, excitement, and usage of your product?</p>	<p><b>Unique Value Proposition</b></p> <p><b>A Clear and Compelling Message</b> This message should explain what you do, how you are different, and why you are worth investing in. What is your promise to consumers? Zero in on the heart of your service and highlight what stands out about product you provide.</p> <p><b>High Level Concept</b> How does your product fit into the bigger picture; where does it fall in the grand scheme of things?</p>	<p><b>Unfair Advantage</b></p> <p><b>Your Differentiator</b> How do you stand out from competitors? What puts you ahead of the pack? Why should consumers have confidence in your service above others?</p> <p><b>Channels</b></p> <p><b>Path to Customers</b> How will you interact with consumers, inform them of your developments and services? Print ads, social media platforms, promotional events, or even word of mouth.</p>	<p><b>Customer Segments</b></p> <p><b>Target Customers</b> Who can you help? Identify 3 to 4 user personas you envision turning to you for solutions. Try our User Persona Creator tool.</p> <p><b>Early Adopters</b> Define the specific characteristics of your early adopters.</p>
<p><b>Cost Structure</b></p> <p><b>Customer acquisition costs, distribution costs, hosting, people, etc.</b> What will it cost to launch and maintain your business? Consider each stage of your start-up from creating a website and acquiring users, to hiring employees and producing goods, to marketing products and getting them to consumers.</p>		<p><b>Revenue Streams</b></p> <p><b>Revenue model, life time value, gross margin, etc.</b> What monetary sources will fuel your company? How will you generate income? Present a pricing model for your product or service, and then highlight other sources of revenue—ad sales, subscription fees, or asset sales.</p>		

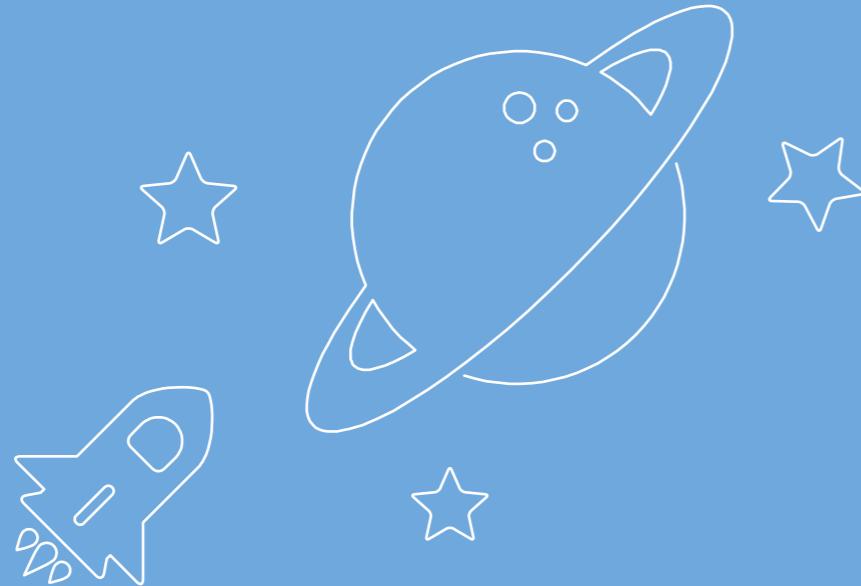
# PRODUCT ROADMAPPING

chidi afulezi  
co.founder, aKoma



# WHAT IS A PRODUCT ROADMAP?

# 35



# roadmapping

a process that helps product people and organizations figure out what to build and when

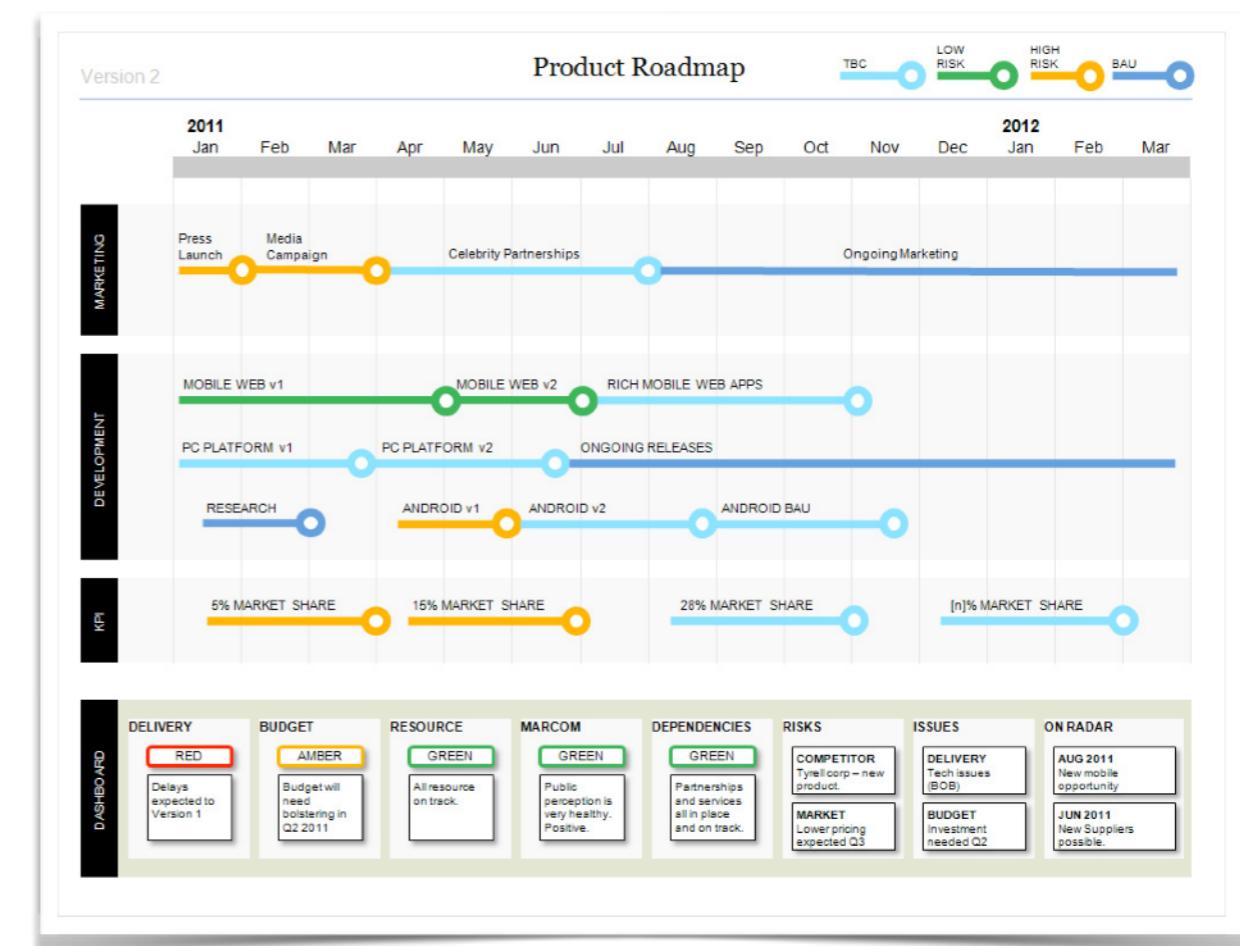
## 36 why is the product roadmap so important?

a strategic planning  
communications document  
that shows the product vision  
and high level initiatives to  
get there

**WHO CREATES  
THE PRODUCT  
ROADMAP?**

# THE PURPOSE OF A PRODUCT ROADMAP

- › Internal Communication
- › Team Alignment
- › Product Positioning
- › Resource Planning/Prioritization
- › Achieving Stakeholder Buy-in
- › Future Vision

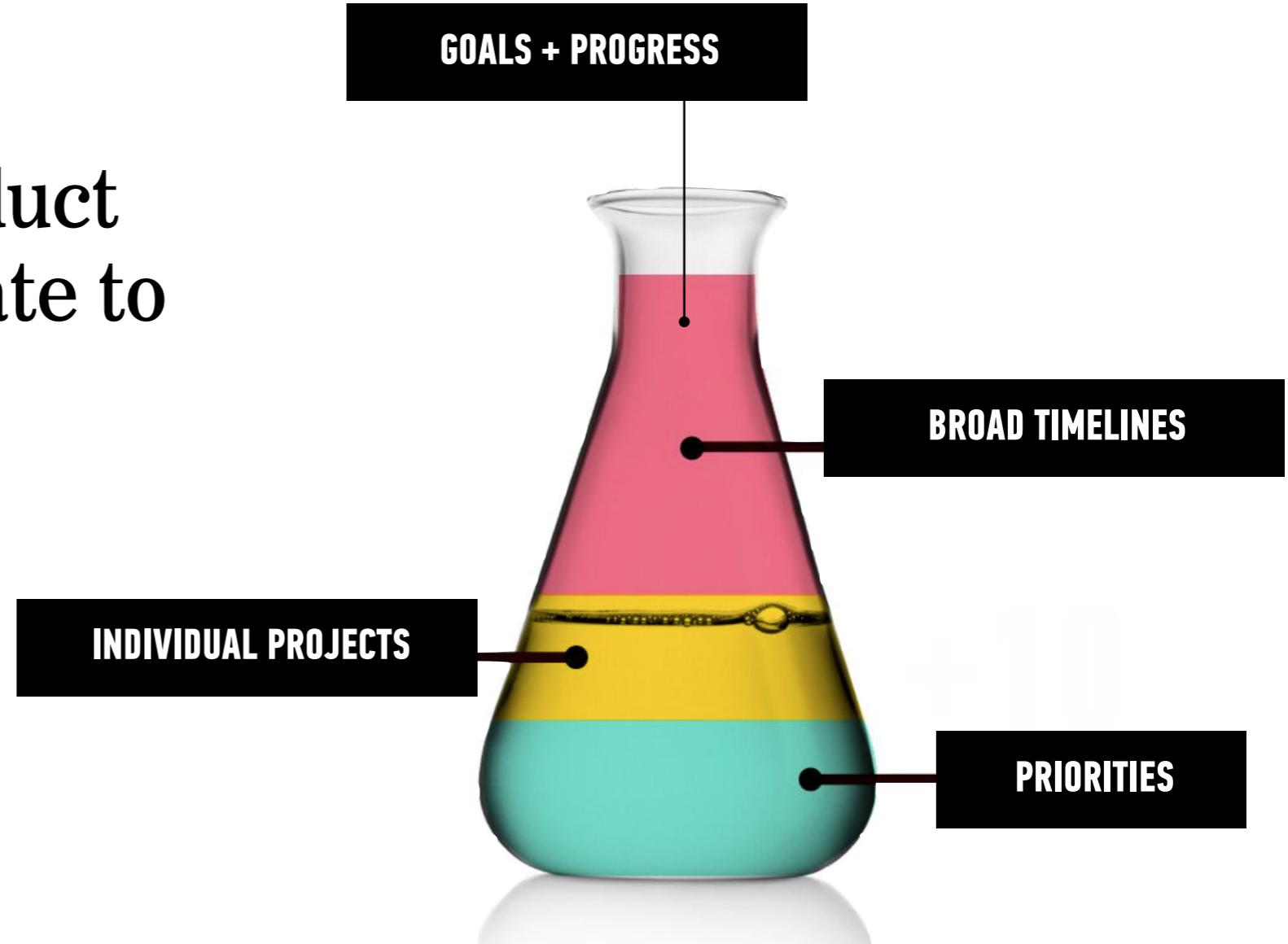


# where does the product roadmap come from?



## THE PRODUCT ROADMAP

Everything in a product roadmap should relate to an **objective** and be measured by a **KPI**.





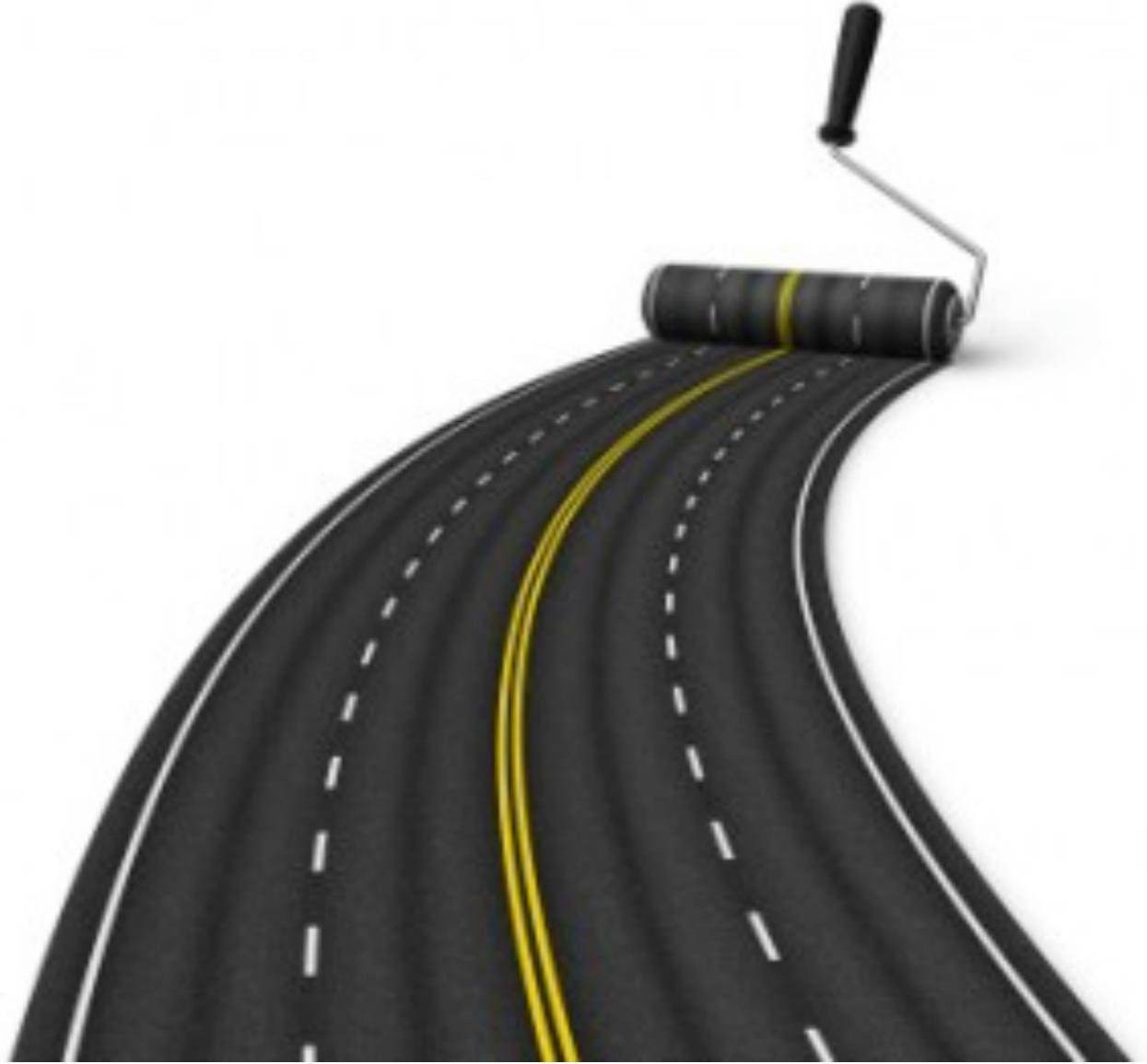
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# **EXAMPLES OF THE PRODUCT ROADMAP**



---

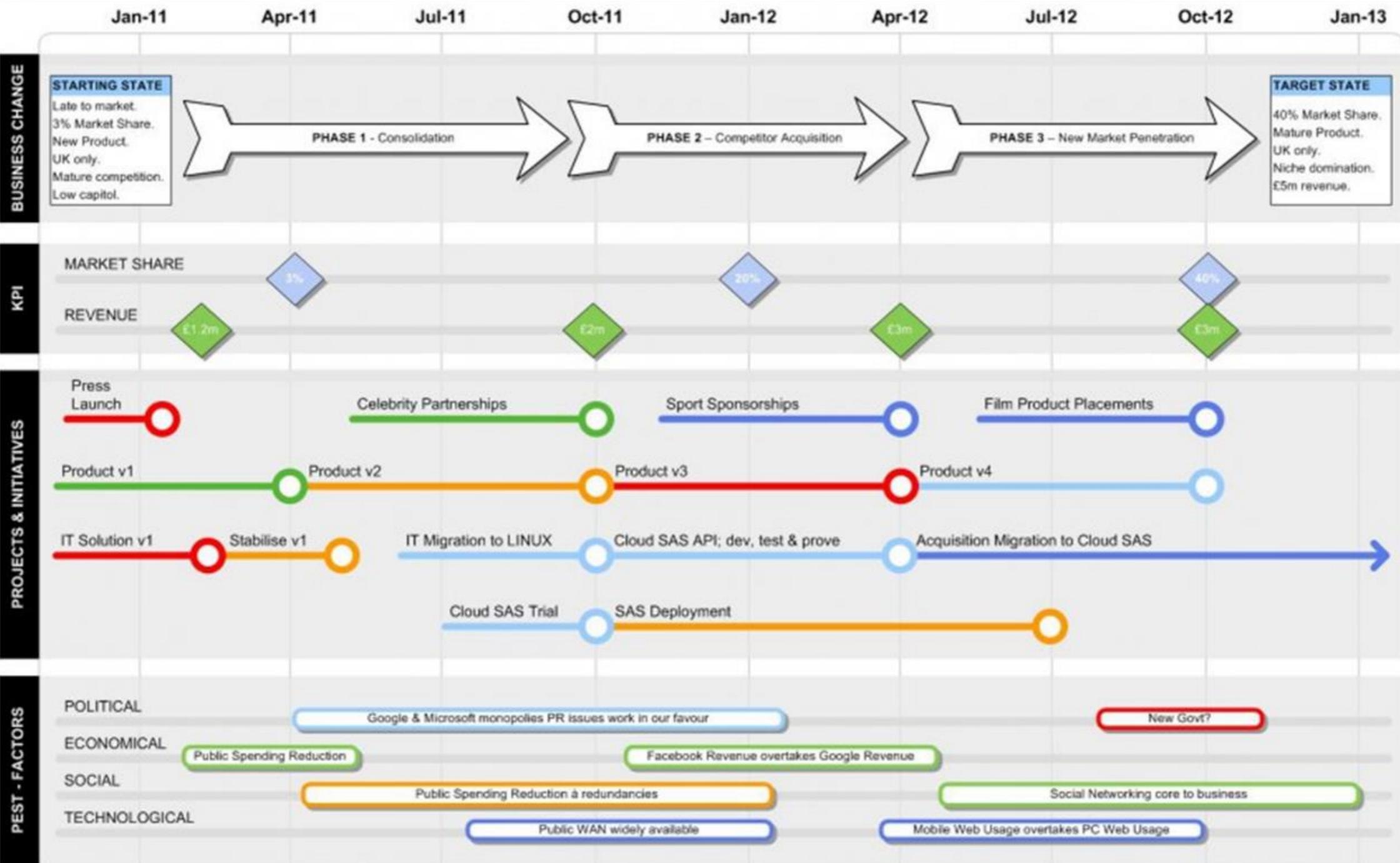
## EXAMPLES OF THE PRODUCT ROADMAP



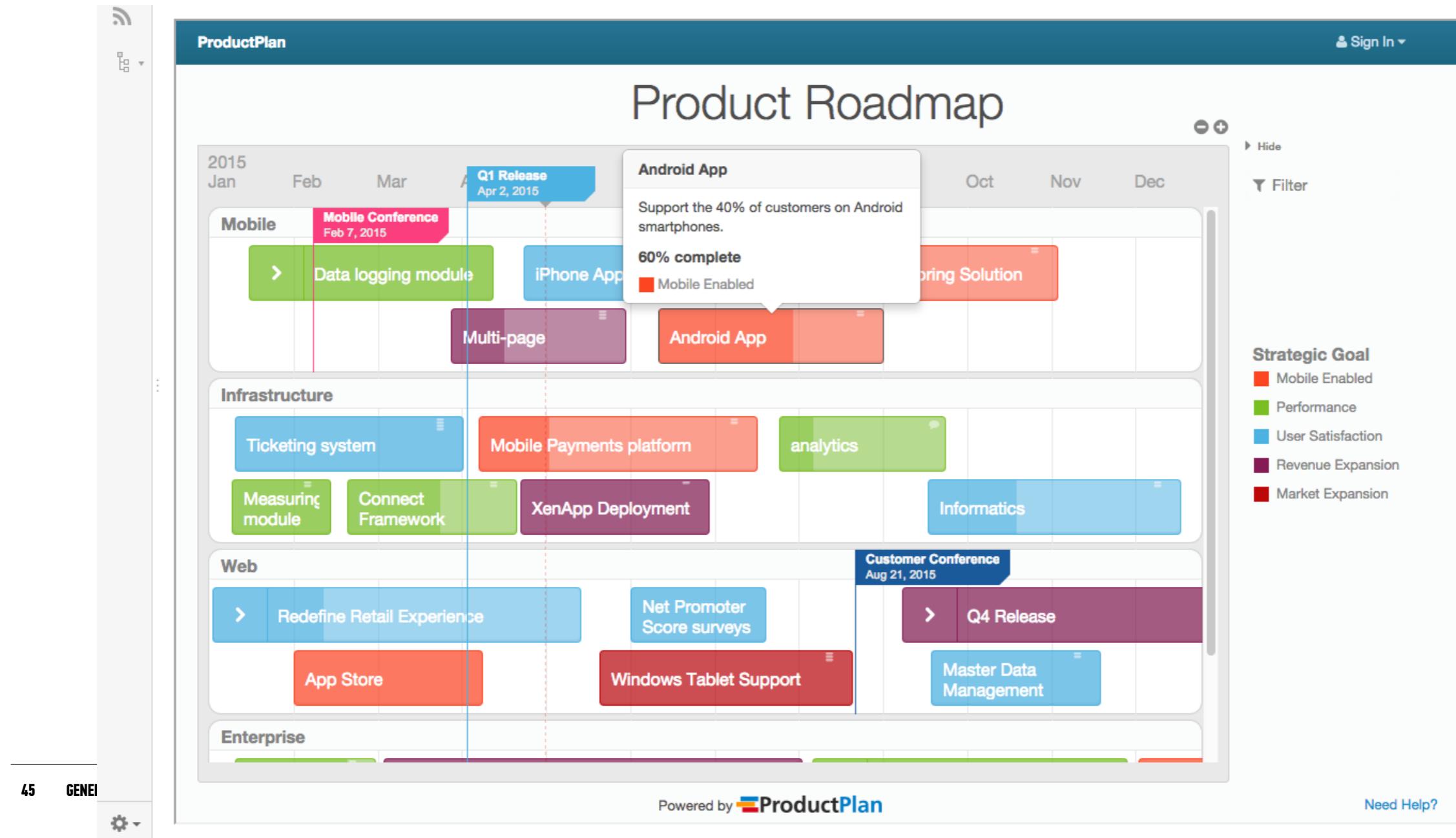
## Roadmap Template

subtitle

Monday, 30 May 2011



# PRODUCT ROADMAP EXAMPLES

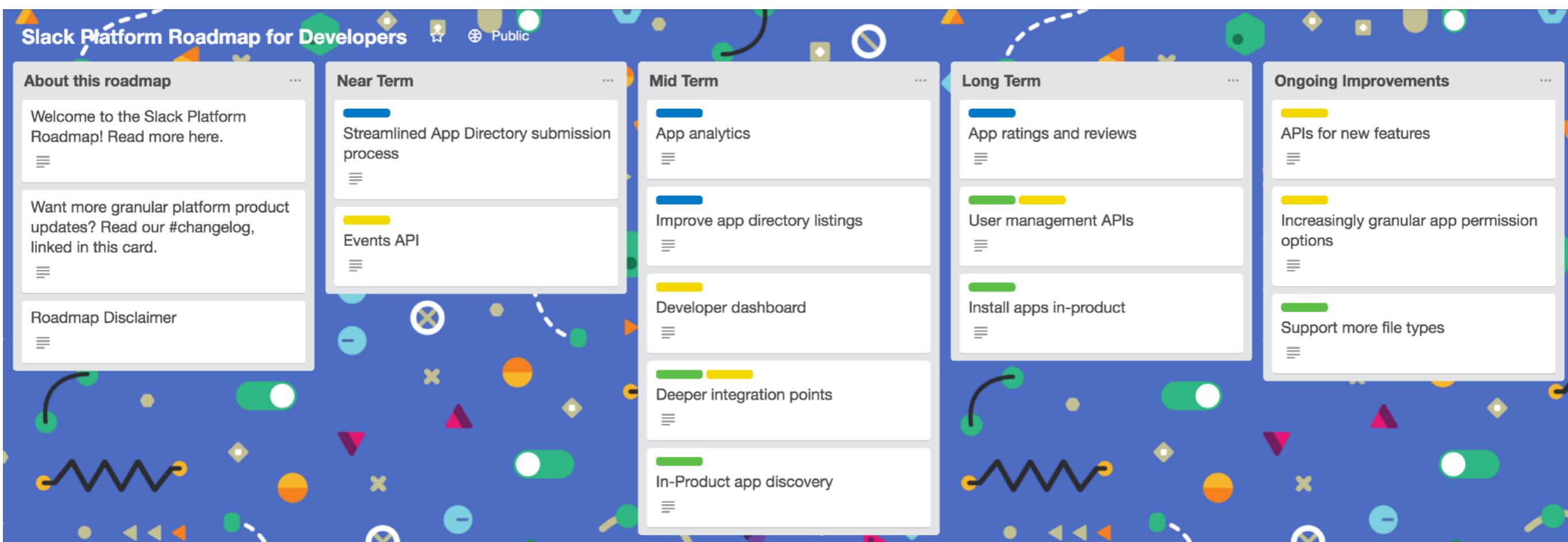


# THE PRODUCT ROADMAP

## THEMES AND QUARTERS

Themes	Q1	Q2
Overhaul Emails	Email System Upgrade  Goal: Time to build email decreases by 1/2 Priority: High Progress: Not started Effort: Medium	Drip Email Implementation  Goal: Drip emails increase conversion by 15% Priority: High Progress: Planned & Designed Effort: Low
Better Seller Experience	Seller Portal  Goal: Uploading products decreases by 3/4 Priority: High Progress: Planned Effort: High	Checkout Overhaul  Goal: Increase conversion by 5% Priority: High Progress: Not started Effort: High
Increase Conversions		

# SLACK'S PUBLIC ROADMAP FOR DEVELOPERS ON TRELLO





Game Version

0.7.2  
(current version)

0.8.0

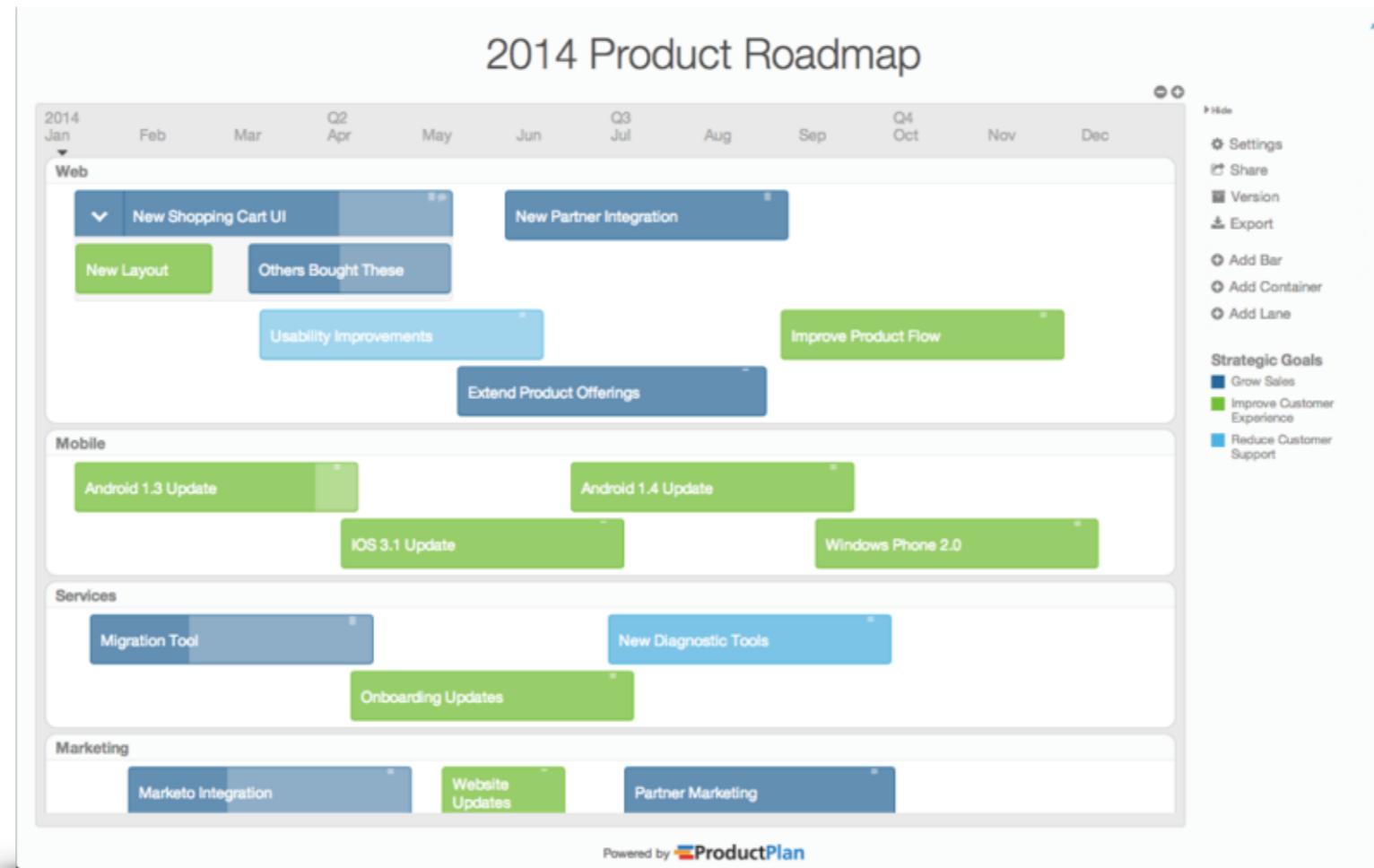
0.8.1

0.9.0

5

	0.7.2 (current version)	0.8.0	0.8.1	0.9.0
Modes	+ translate		+ jukebox	
Website	community	+ ranking	+ shop	
in game DLC	song updates	+ free songs	+ shop	
Ranking	local top5		online	
Game		free		

# EXAMPLES OF THE PRODUCT ROADMAP



## 50 what does a good roadmap look like?

the litmus test for a good product roadmap is that it's **visual, accessible and clear** enough for anyone to scan for answers to the following questions:

- **what are we doing?**
- **why are we doing it?**
- **how does this tie back to our OKRs?**

**roadmaps**

**roadmaps should be goal  
oriented, built thematically as  
promises to solve problems, not  
build features**

## roadmaps

*We need to let go of the idea that we can enumerate a list of features that represents what we'll do in the future. This idea is absurd. Rather than sharing feature lists with the rest of the company, we should be communicating how we will make decisions.*

*Teresa Torres, Product Talk*

## **focus on problems and outcomes**

- **think outcomes not output**
- **the team should define and create outcomes**
- **roadmap is a series of missions and outcomes**

**no need to abandon timelines**

**key is to have a theme based  
roadmap, and a release plan**

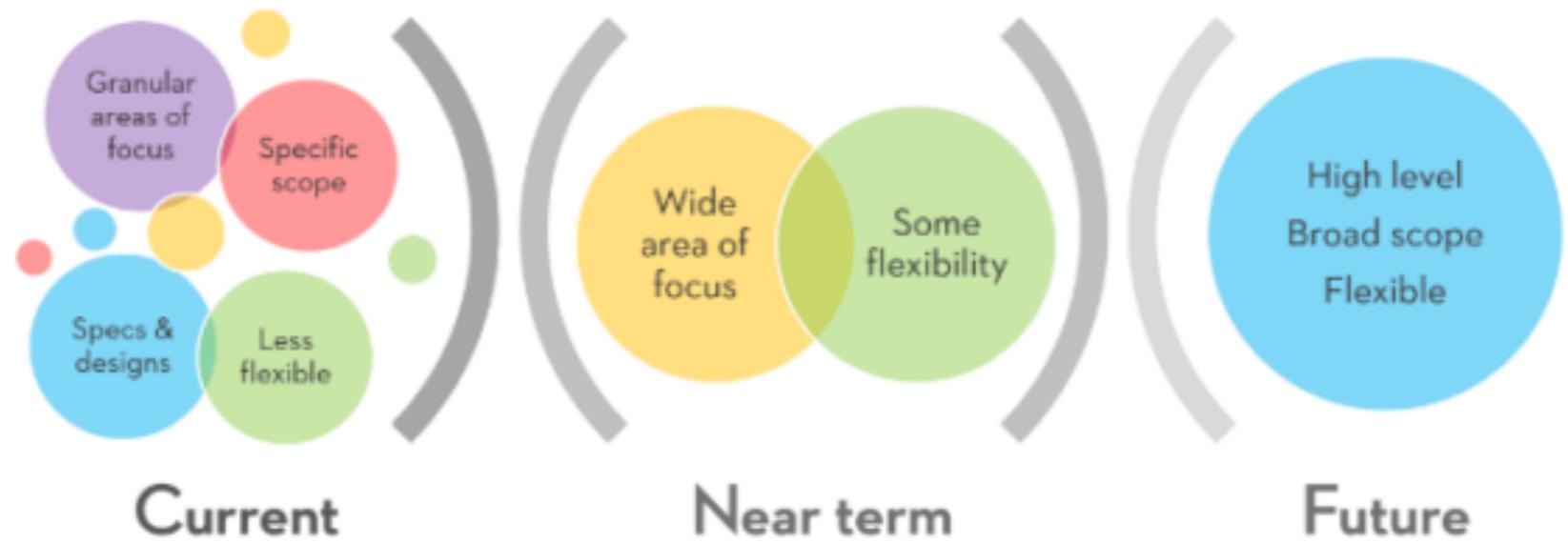
**no need to abandon timelines**

**release plan outlines dates,  
dependencies, resources for the  
upcoming releases. roadmap  
broadly shows your current, short-  
term and long-term priorities.**

**no need to abandon timelines**

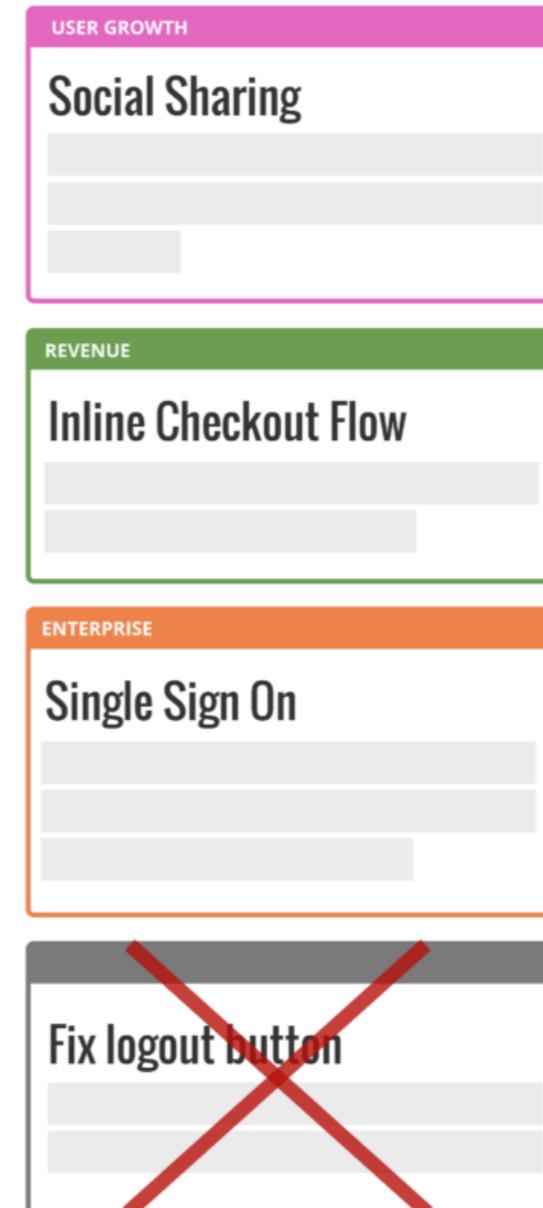
**definitely useful to have a  
release plan for the short term**

# theme based roadmaps - prodpad



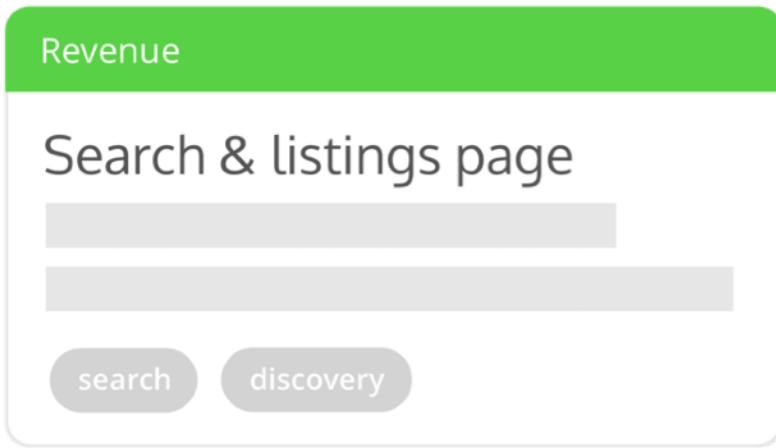
theme based roadmaps

each roadmap  
card represents  
a theme

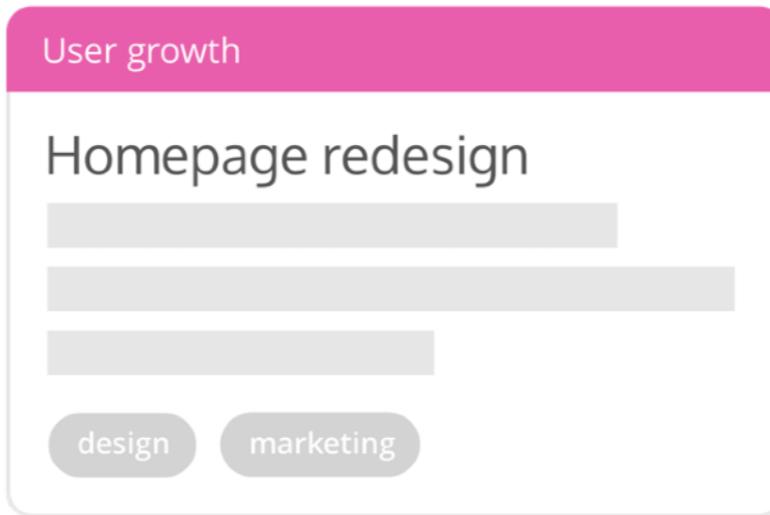


# theme based roadmap - prodpad

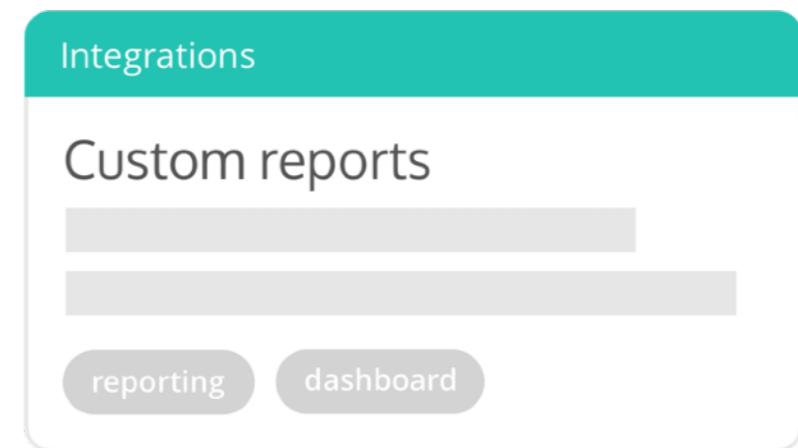
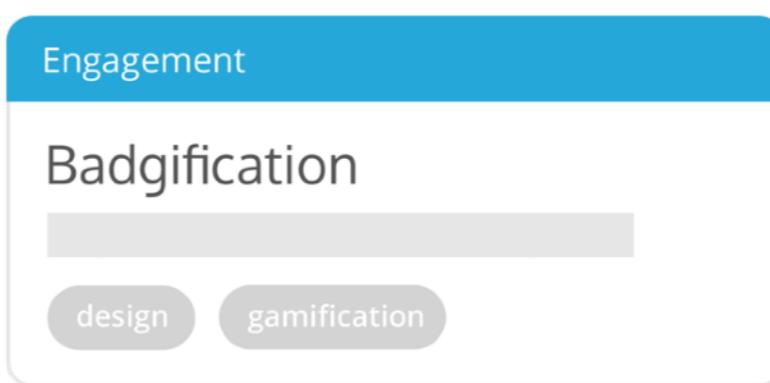
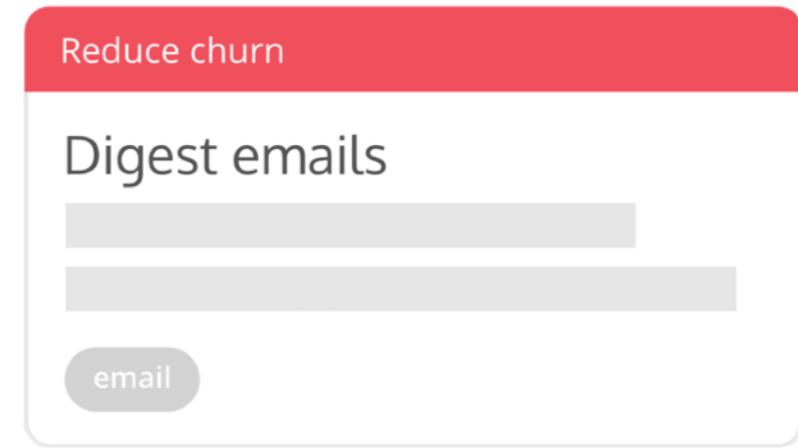
## Current



## Near term



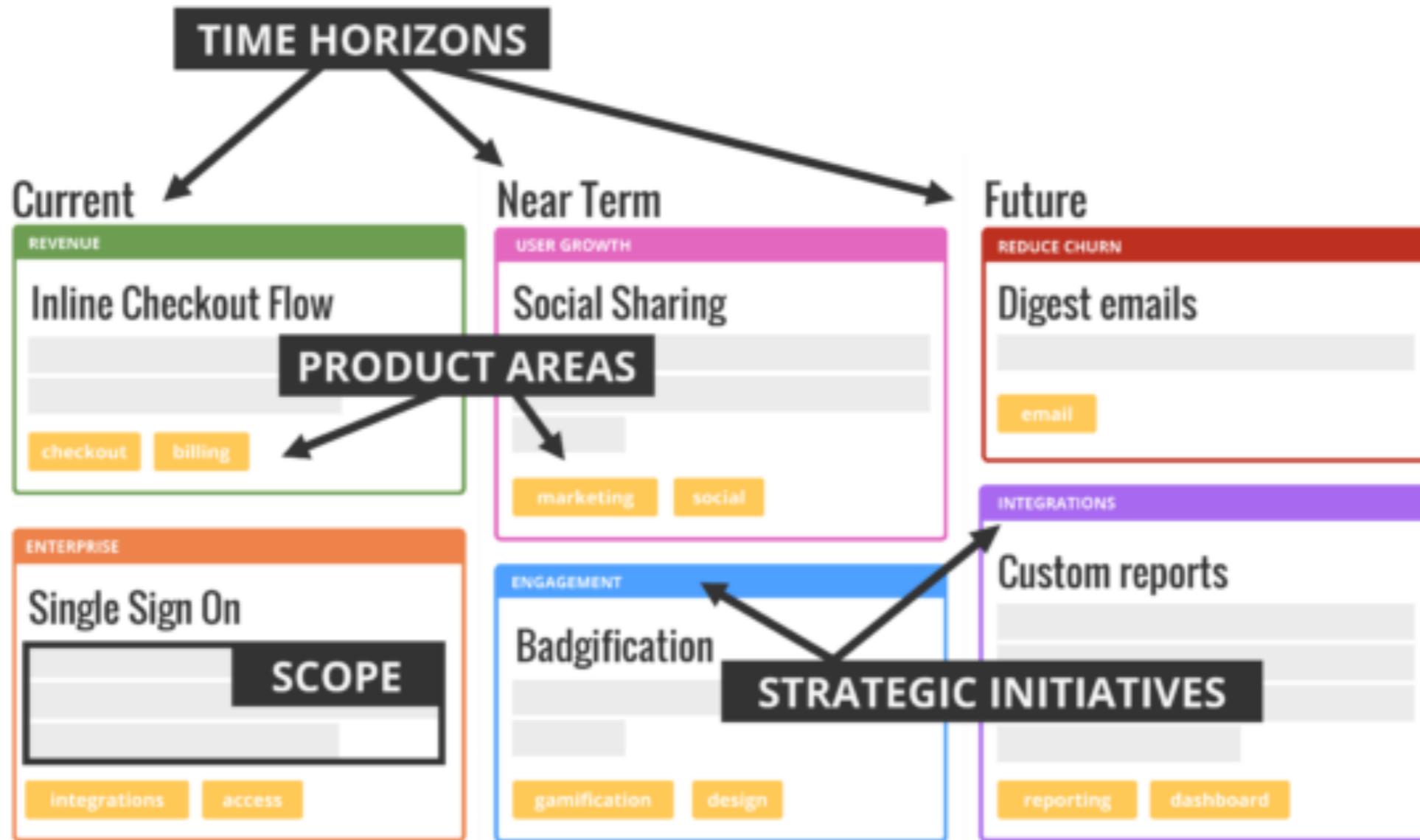
## Future



**add some detail - make the case**

**what are we doing? why are we  
doing it? how does this tie back  
to our OKRs?**

# add some detail - make the case



**ProdPad**

**go to ProdPad, learn how to do  
this - [https://www.prodpad.com/  
product-roadmap-course/](https://www.prodpad.com/product-roadmap-course/)**

**roadmaps**

**shifting to themes in the product  
roadmap is a challenge**

**WHAT KIND OF ROADMAP  
THEMES WOULD YOU HAVE  
FOR A TV SPOT INVENTORY  
PLATFORM?**

# 65

**product  
planning is a  
holistic and  
critical  
process**

Business  
Strategy

Value  
Props

Product  
Goals

Product  
Roadmap

# ACTIVITY

---



## KEY OBJECTIVE(S)

---

Create a product roadmap for Android TV, a media and streaming platform

## TIMING

---

5 min      In groups of three, think through what main themes would be needed to build out Android TV. Come up with two themes.

15 min      Think of which main projects would likely sit in each of those themes. Discuss the priority and effort of each piece, and slate 1 or 2 projects in each quarter for a year plan.

## DELIVERABLE

---

A Product Roadmap broken down by current, near term, future term with projects in each section.

---

## **PRODUCT ROADMAP RECAP**

---

# **PRODUCT ROADMAPS**

- Creating a well thought out product roadmap is a key part of your role as a product manager.
- It is just as critical that you communicate the roadmap to all stakeholders and your team.
- Make sure your roadmap is balanced with long term projects and small wins.



**ProdPad**

[prodpad.com](http://prodpad.com)

**idea management,  
roadmap, feature  
prioritisation**

**(US\$59/month)**



**Aha**

[Aha.io](http://aha.io)

Idea management,  
roadmaps, crowd  
source ideas

**(US\$59/month)**



**Trello**

[trello.com](http://trello.com)

**collaborative task  
management, feature  
prioritisation.**

**(FREE)**

# TECHNOLOGY FOR PM'S

chidi afulezi  
co.founder, aKoma

# **LEARNING OBJECTIVES**

- Explain common terms used in software development.
- Solve common PM problems using technical knowledge.
- Write effective release notes.
- Discuss best practices for communicating with developers and for managing the resource constraints of developers.

---

**TECHNOLOGY FOR PM'S**

---

# INTRODUCTION

# HOW MUCH TECHNOLOGY DOES A PM NEED TO KNOW?

**DISCLAIMER: YOU DON'T  
NEED TO BE AN  
ENGINEER, BUT YOU NEED  
TO SPEAK THE  
LANGUAGE.**



---

## THE STACK

---

A PRODUCT MANAGER MUST BE  
TECHNICALLY CONVERSANT TO DO  
THE JOB EFFECTIVELY

---

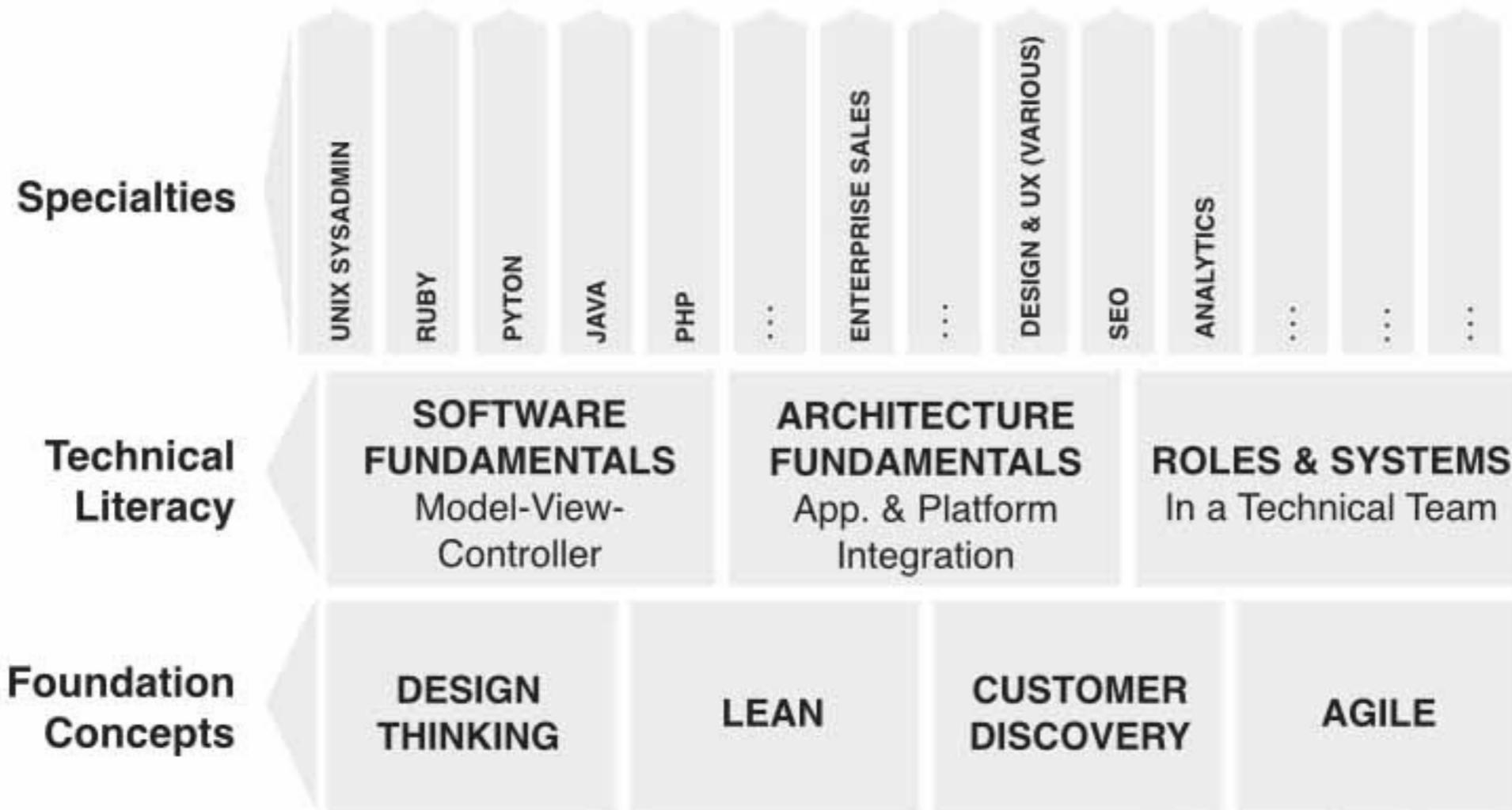
## **DISCLAIMER!**

---

**YOU DON'T NEED TO BE AN ENGINEER,  
BUT YOU NEED TO **SPEAK IT.****

**THIS LESSON IS JUST THE BEGINNING.  
YOU WILL NOT LEARN EVERYTHING YOU  
NEED TO KNOW BY THE END OF THIS  
LESSON.**

# THE FULL STACK PRODUCT MANAGER



---

**TECHNOLOGY FOR PM'S**

---

# **THE STACK**

---

**THE STACK**

---

**WHAT DOES A  
TECH STACK  
MEAN?**

---

## THE STACK

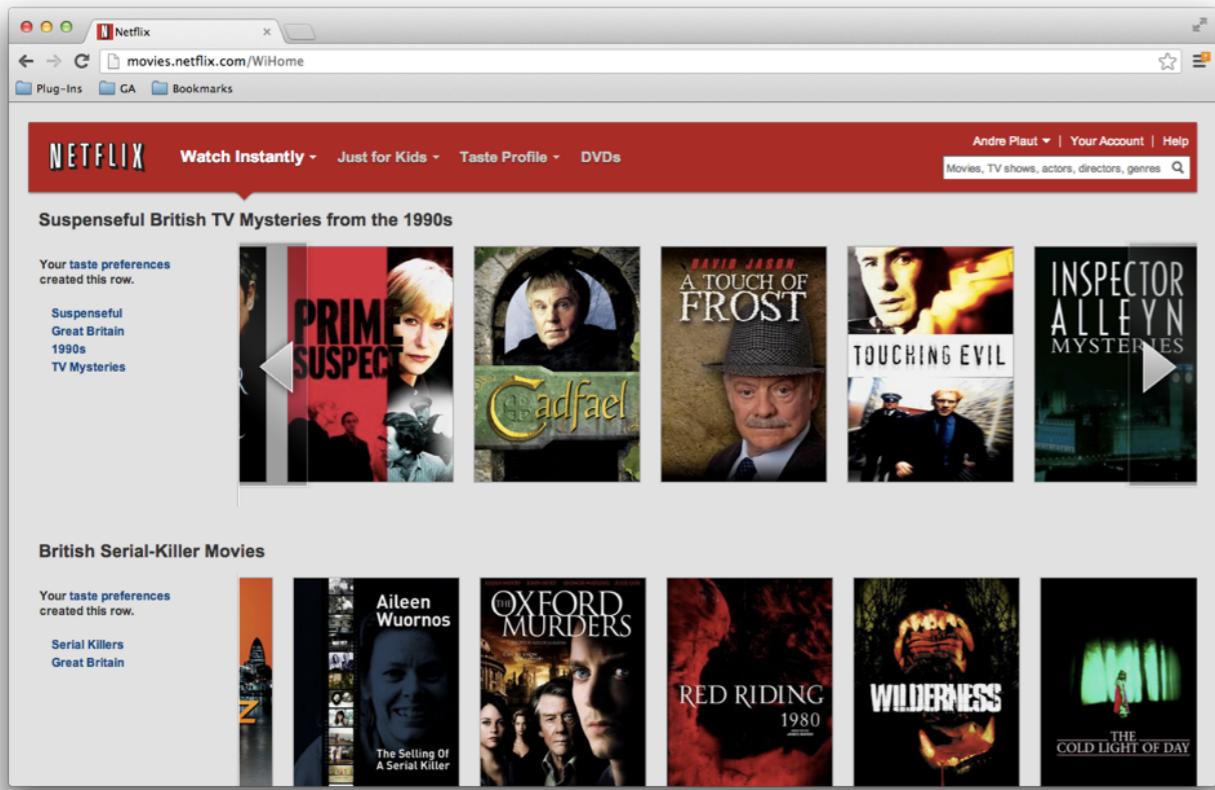
---

A TECH STACK  
COMPRISES THE LAYERS OF  
COMPONENT OR SERVICES USED TO  
PROVIDE A SOFTWARE SOLUTION OR  
APPLICATION

# THE STACK

## FRONT-END

WHAT USERS SEE AND INTERACT WITH



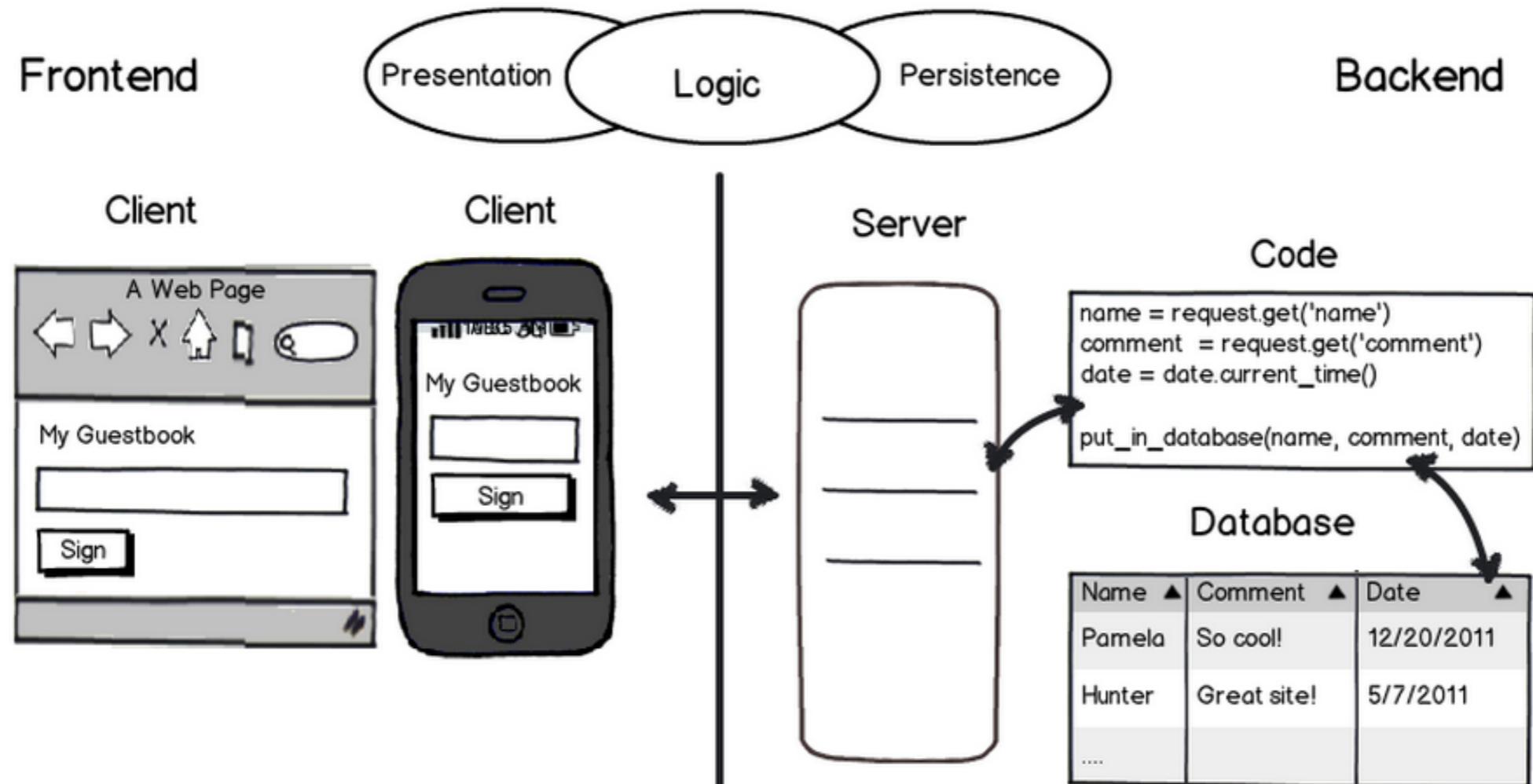
## BACK-END

THE PROCESSES THAT ALLOW THE FRONT-END TO REACT, ADAPT, AND FUNCTION

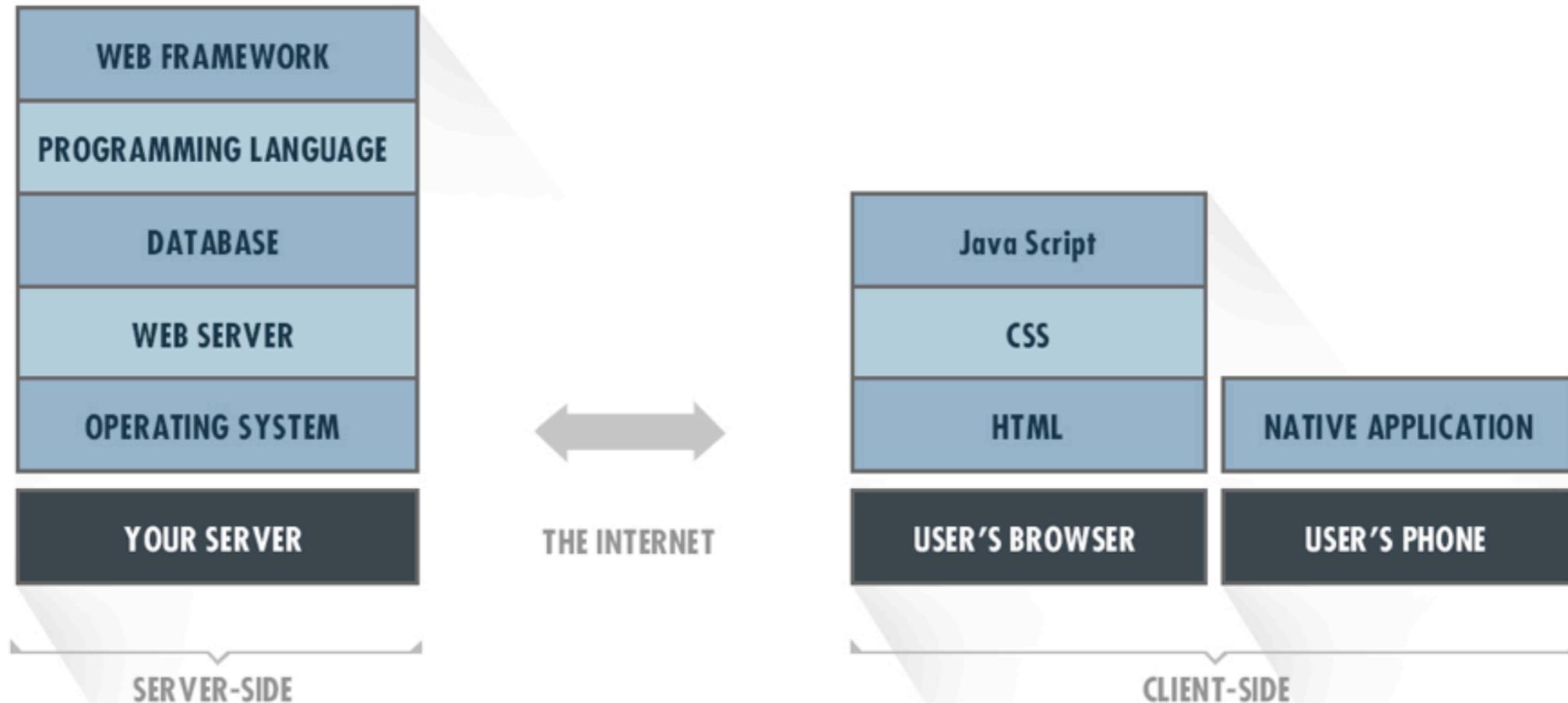
A screenshot of a terminal window titled 'screen' on a Linux system. The window displays a Ruby script with numerous lines of code. The code appears to be a command-line application for managing categories and files. It includes functions for loading categories from a directory, reading from a CSV file, and handling file lists. The terminal also shows a sidebar with various command-line tools and their descriptions. At the bottom of the terminal, there is a status bar with system information like memory usage and the current date and time.

# THE STACK

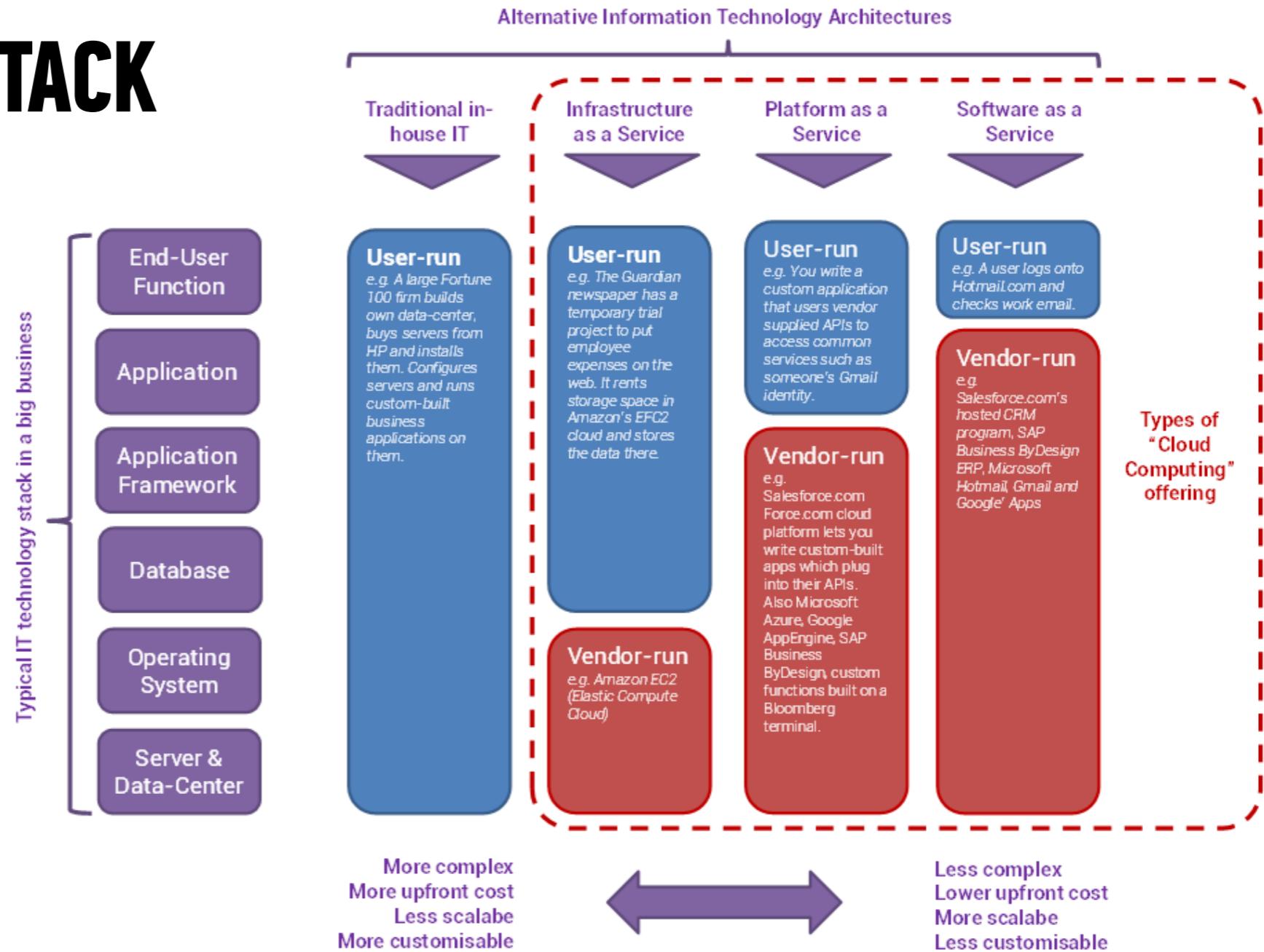
# TECH STACK



# THE STACK



# EXAMPLE TECH STACK



## THE STACK

NAME	DESCRIPTION	EXAMPLE
UI	Layer that the user sees, aka ‘User Interface’	HTML/CSS
Interactivity	Controls how the user interacts	Javascript
Data	Surfaces data from backend to frontend; the information collected about users or products	Javascript
Server	Sends information from code to website	RackSpace, S3
Code	Language that the site is built on	PHP, others
Database	‘Home’ for all of the data for the site or product	MySQL

## THE STACK

---

### FRONT END

HTML ← What is the structure/content?  
CSS ← What does it look like?  
JavaScript ← How does it behave?

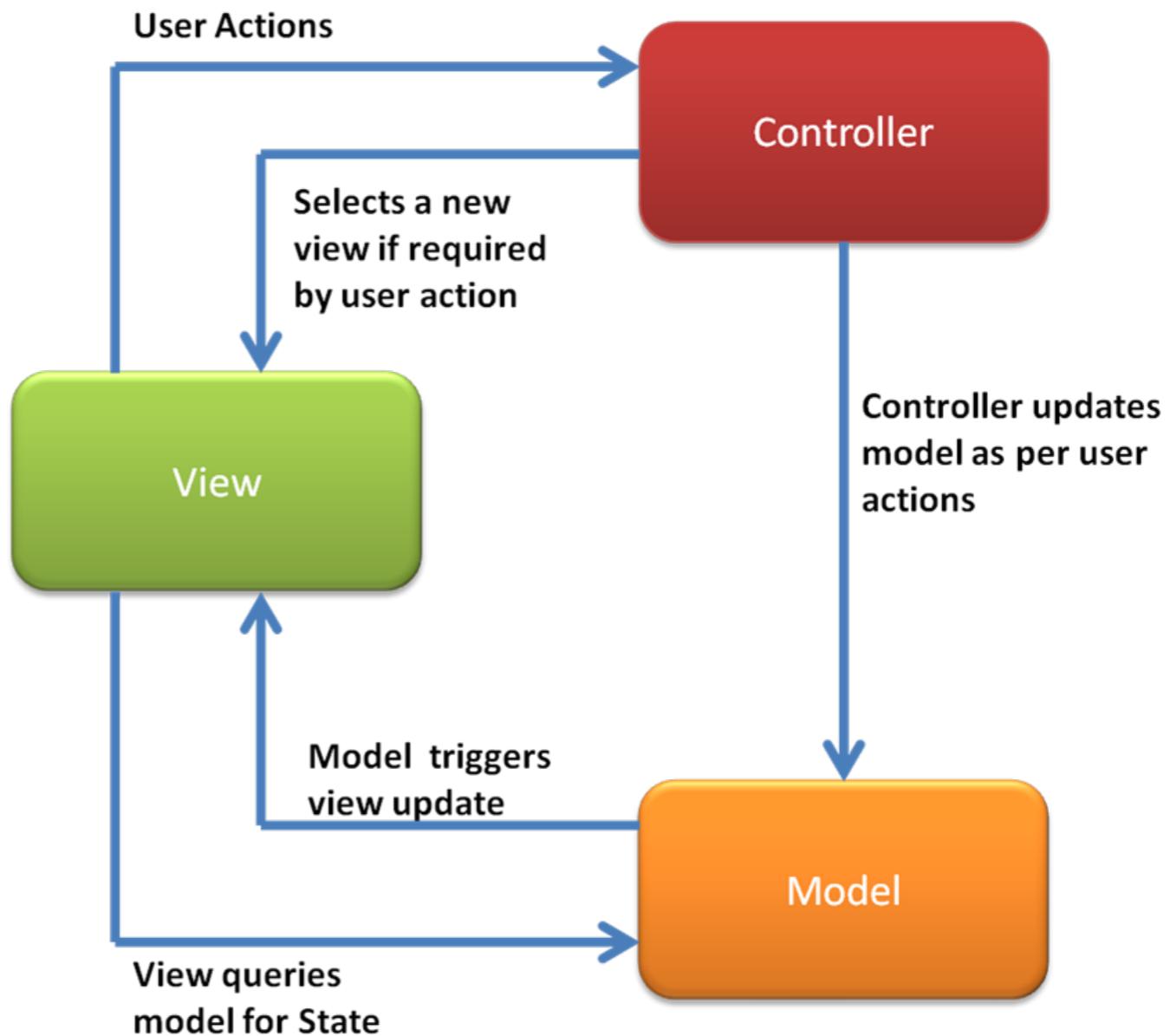
### BACK END

Python / Ruby / PHP ← What does it do?  
MySQL ← What data are we storing?

## THE STACK

# MODEL VIEW CONTROLLER (MVC)

A great way to understand the way the stack works



?

»

## THE STACK



---

**TECHNOLOGY FOR PM'S**

---

# **WORKING WITH DEVELOPMENT**

---

## **WORKING WITH DEVELOPERS**

---

**IT IS THE JOB OF A PM TO CLEARLY  
ARTICULATE WHAT THE PROBLEM IS AND  
WHY IT IS IMPORTANT**

---

## **WORKING WITH DEVELOPMENT**

---

**ADDING, REMOVING OR DELAYING  
FEATURES HAS CONSEQUENCES.**

# WORKING WITH DEVELOPMENT



---

## BUILDING FEATURES

---

**SO HOW DO YOU DETERMINE THE  
TECHNICAL IMPLICATIONS?**

**WORK WITH YOUR  
DEVELOPERS!**

---

## BUILDING FEATURES

---

# WORKING WITH DEVELOPERS

- Should be brought in as early in the project as possible & have a sense of ownership.
- Present the problem you're trying to solve & solicit possible solutions.
- As project progresses, develop requirements that the solution needs to address, but avoid prescribing how to do it.
- Understand & remember that the developer is the expert in this area.

---

**TECHNOLOGY FOR PM'S**

---

# WRITING RELEASE NOTES

---

## **WRITING RELEASE NOTES**

---

**RELEASE NOTES EXPLAIN WHAT CHANGED  
WITH THIS VERSION OF YOUR PRODUCT.**

---

## **WORKING WITH DEVELOPMENT**

---

### **RELEASE NOTES SHOULD BE READABLE, BRIEF, AND INCLUDE**

- Name of the Product
- One sentence overview of what is expected
- Release date
- Installation requirements
- A link to the user manual
- Links to other materials or product requirements

# WRITING RELEASE NOTES

The screenshot shows the Tableau website with the release notes for version 9.3.4. It includes sections for New Capabilities (none listed), Corrected Issues (none listed), and a detailed list of releases for Tableau 9.3 and 9.2.

**Release Notes for Tableau 9.3.4**

**Note:** Tableau Desktop customers in environments with Product Updates enabled will receive this maintenance release as soon as it is made available. For more information, see the [Tableau Known Issues](#).

**Release Date:** July 12, 2016  
**Desktop Build Number:** 9300.16.0708.1543  
**Server Build Number:** 9300.16.0708.1543

## Release Notes

### Tableau 9.3

- [Version 9.3.4](#) – released July 12, 2016
- [Version 9.3.3](#) – released June 14, 2016
- [Version 9.3.2](#) – released May 23, 2016
- [Version 9.3.1](#) – released May 17, 2016
- [Version 9.3](#) – released March 23, 2016

### Tableau 9.2

- [Version 9.2.10](#) – released July 12, 2016
- [Version 9.2.9](#) – released June 14, 2016
- [Version 9.2.8](#) – released May 17, 2016
- [Version 9.2.7](#) – released April 5, 2016
- [Version 9.2.6](#) – released March 10, 2016

The screenshot displays two web pages: one for watchOS 2.0 - 2.2.2 and another for Firefox 47.0.

**watchOS 2.0 - 2.2.2 Information**

**watchOS 2.2.2**  
This release contains bug fixes and security updates.  
For information on the security content of Apple software updates, please visit <https://support.apple.com/en-us/HT201222>

**watchOS 2.2.1**  
This release contains bug fixes and security updates.  
For information on the security content of Apple software updates, please visit <https://support.apple.com/en-us/HT201222>

**watchOS 2.2**  
This update includes support for pairing multiple watches to one iPhone, new language support. This release also includes additional improvements:

- Adds support for pairing multiple Apple Watches to one iPhone
- Adds Nearby in Maps to browse for places around you by category, Shopping, and more
- Adds support for system language in Catalan, Croatian, Slovak, Romanian, and Indonesian
- Adds support for dictation in Catalan, Croatian, Slovak, Romanian, (Saudi Arabia, UAE, and Indonesia)

**Firefox 47.0**  
Firefox Release  
June 7, 2016

**See what's new in Firefox!**

Release Notes tell you what's new in Firefox. As always, we welcome your [feedback](#). You can also [file a bug in Bugzilla](#) or see the [complete list of changes](#) in this release.

**DESKTOP** **ANDROID** **IOS** **OTHER RELEASES**

- ★ new** Support for Google's Widevine CDM on Windows and Mac OS X so streaming services like Amazon Video can switch from Silverlight to encrypted HTML5 video.
- Enable VP9 video codec for users with fast machines
- Embedded YouTube videos now play with HTML5 video if Flash is not installed.
- View and search open tabs from your smartphone or another computer in a sidebar
- Allow no-cache on back/forward navigations for https resources

Latgalu [tg] locale added. Wikipedia tells us there are 164,500 daily