



I-CORPS

## "The first principle is that you must not fool yourself



"The first principle is that you must not fool yourself, and you are the easiest person to fool."



### Why are we here?

### Our Goal

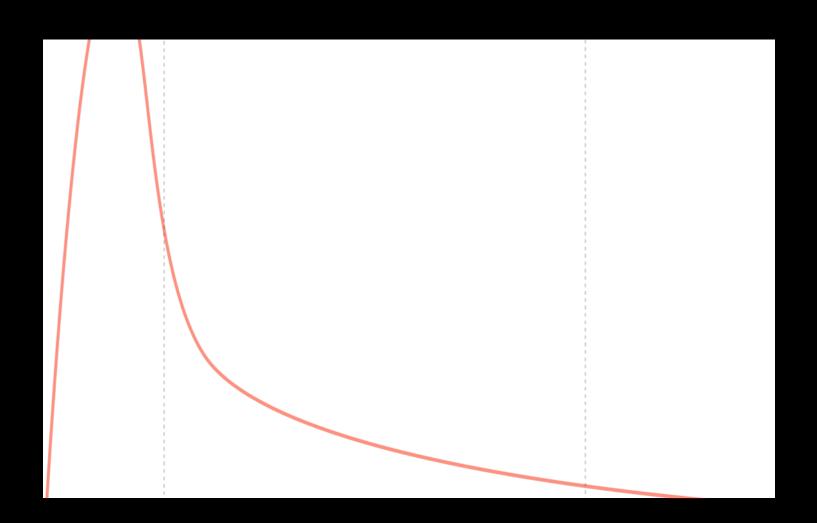
### Improve Odds

### Pick Winners

### Pick Winners

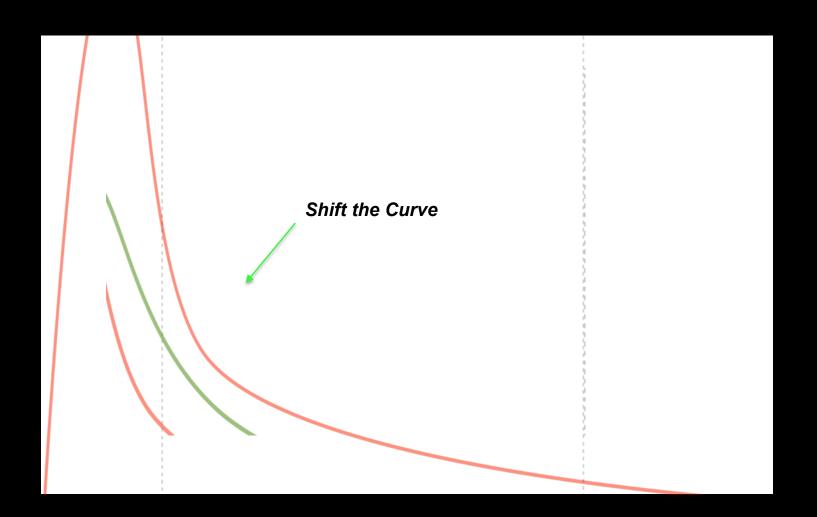
### Startup Statistics

# Innovative Idea Startup Statistics



venture science

### Create More Winners



### Before we start...



### I-Corps Story

### \$7 Billion

# "How can we increase the economic impact of the research dollars invested every year?"









## Developed by entrepreneurs

# Taught by entrepreneurs

Steve Blank is a consulting associate professor at Stanford University and a lecturer and National Science Foundation principal investigator at the University of California at Berkeley and Columbia University. He has participated in eight high-tech start-ups as either a cofounder or an early employee.

# Why the Lean Start-Up Changes Everything

### Härvard Business Review

**P** \*\*\*\*\*\*\*\*\*

The Limits of Social Influence

In Search of the Next Big Thing An interview with

The Unmanageable Star Performer



by Harvard Business School's Shikhar Ghosh shows, 75% of all start-ups fail.

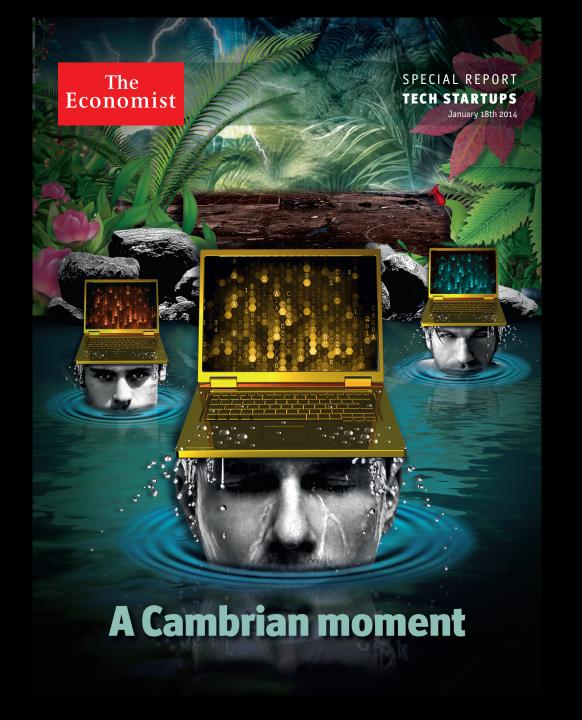
But recently an important countervailing force has emerged, one that can make the process of starting a company less risky. It's a methodology called the "lean start-up," and it favors experimentation over elaborate planning, customer feedback over intuition, and iterative design over traditional "big design up front" development. Although the methodology is just a few years old, its concepts—such

"minimum viable product" and "pivoting"—have ickly taken root in the start-up world, and busiss schools have already begun adapting their curula to teach them.

The lean start-up movement hasn't gone totally ainstream, however, and we have yet to feel its full pact. In many ways it is roughly where the big data ovement was five years ago—consisting mainly of puzzword that's not yet widely understood, whose aplications companies are just beginning to grasp. It as its practices spread, they're turning the conntional wisdom about entrepreneurship on its add. New ventures of all kinds are attempting to

—ad. New ventures of all kinds are attempting to improve their chances of success by following its principles of failing fast and continually learning. And despite the methodology's name, in the long term some of its biggest payoffs may be gained by the *large* companies that embrace it.

In this article I'll offer a brief overview of lean start-up techniques and how they've evolved. Most important, I'll explain how, in combination with other business trends, they could ignite a new entrepreneurial economy.



MIT Technology Review

HAS QUANTUM COMPUTING FINALLY ARRIVED?

Upfront p24

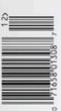
HOW TOMORROWS STARTUPS WILL BE FUNDED

Business Report p75

TECH TRANSFORMS MUSIC, ART, AND PROSE

Reviews p87

W HEND & LEEDS UP



Buzz Aldrin, Apollo 11 moonwalker, would like a word with you.

#### You Promised Me Mars Colonies. Instead, I Got Facebook.

We've stopped solving big problems. Meet the technologists who refuse to give up. 926

## Technology Review

Upfront p24

Business Report p75 Reviews p87



Buzz Aldrin

You Promised Me Mars Colonies. Instead, I Got Facebook.

> We've stopped solving big problems. Meet the technologists who refuse to give up. p26

### I-Corps Nodes



### DC Regional Node



### What will you do?

### Jump In



### 100 Interviews

### Jump In

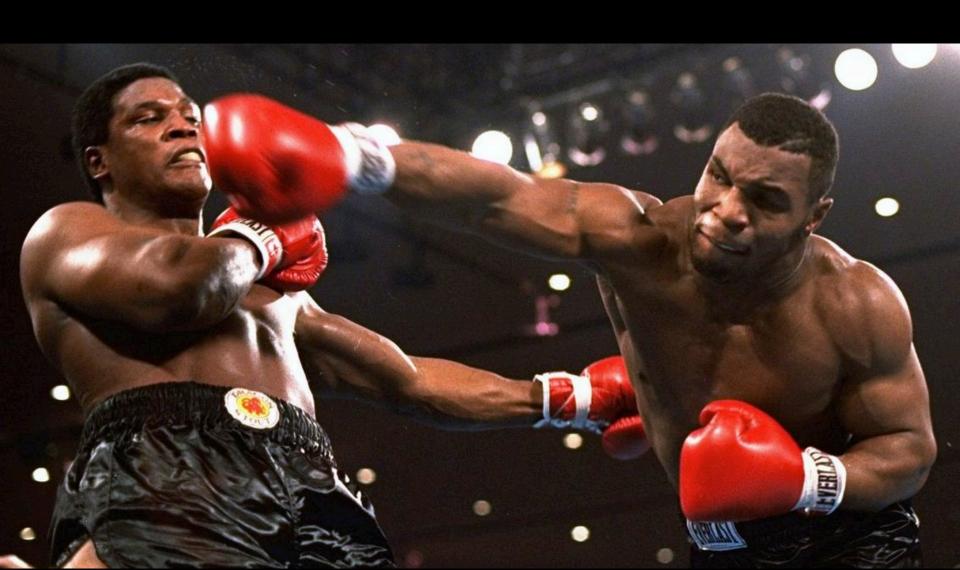


### But why?



### Everyone has a plan...

### ...until he gets punched in the face."

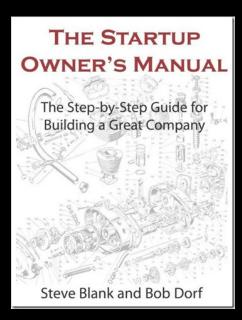


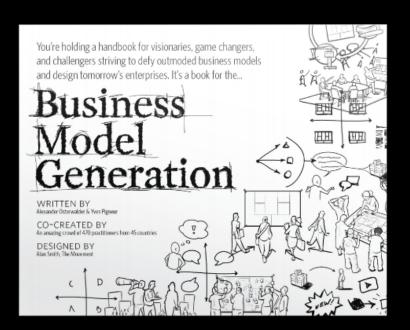
# Search for... Problem-Solution Fit

# Search for... Product-Market Fit

# Search for... Business Model Fit

#### STARTUP MISTAKES **Hiring Poorly Score: 153** 18% of Tot. **Building something Lack of Focus** nobody wants Score: 112 13% of Tot. Score: 300 36% of Tot. Score: 98 12% of Tot. Fail to execute Sales & Marketing 100 First Hits www.100FirstHits.com 8. Spending Too Much Money 18 (2,1%) 5. Not Having The Right **66** (7,9%) Co-Founders 9. Failing To Ask 12 (1,4%) 6. Chasing Investors, 45 (5,4%) For Help Not Customers **10.** Ignoring Social **6** (0,7%) 7. Not Making Sure You 28 (3,3%) Media Have Enough Money



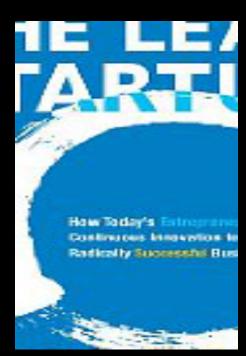


#### TALKING TO HUMANS

Success starts with understanding your customers

#### GIFF CONSTABLE

with Frank Rimalovski illustrations by Tom Fishburne and foreword by Steve Blank



## Startup Story



## My startup set out to change an *entire industry*

#### 1600s Night Caps





### 1700s

**Tri-corner Hats** 



1800s
Top Hats





#### More innovation in hats

#### We had a much better way

#### 3.0 Company History

Throughout the late 1980s the National Science Foundation funded professors at Virginia Tech to research real-time, radio-based position measurement technology for use in construction environments. That research led to a greater understanding of the potential for real-time systems and their limitations. The research showed that radio-frequency technology would have practical limitations in day-to-day operations. After the research concluded, graduate students working independently conceived the concept of a laser-based system. Two of the professors and a former

### And these guys said so





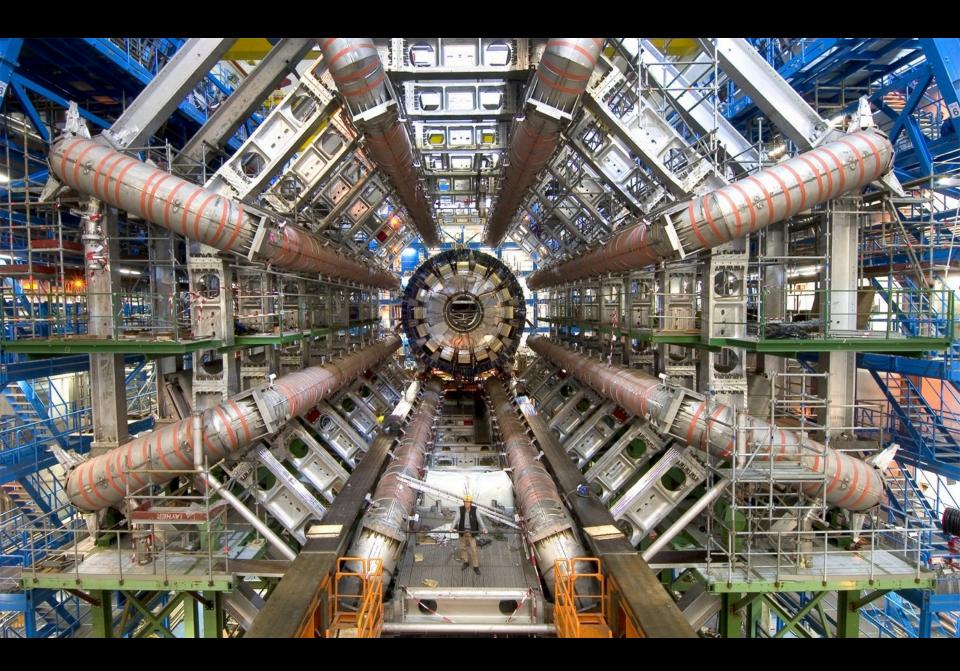


HANKS BACON PAXTON SINISE HARRIS

"Houston, we have a problem."

APOLLO 13

NOTHING ON EARTH COULD COME BETWEEN THEM.





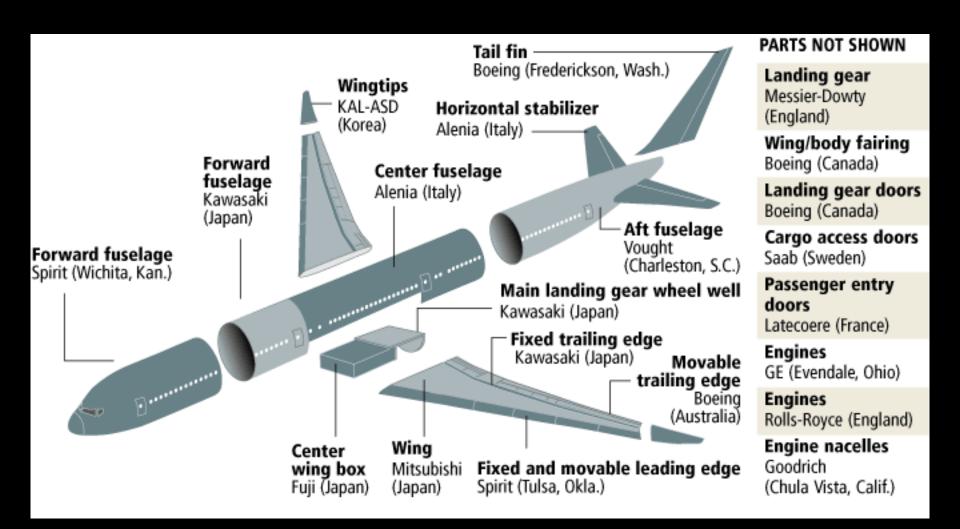




## What Happened?

#### 10 years \$20M later







### What's a startup?

#### A temporary organization

## A temporary organization

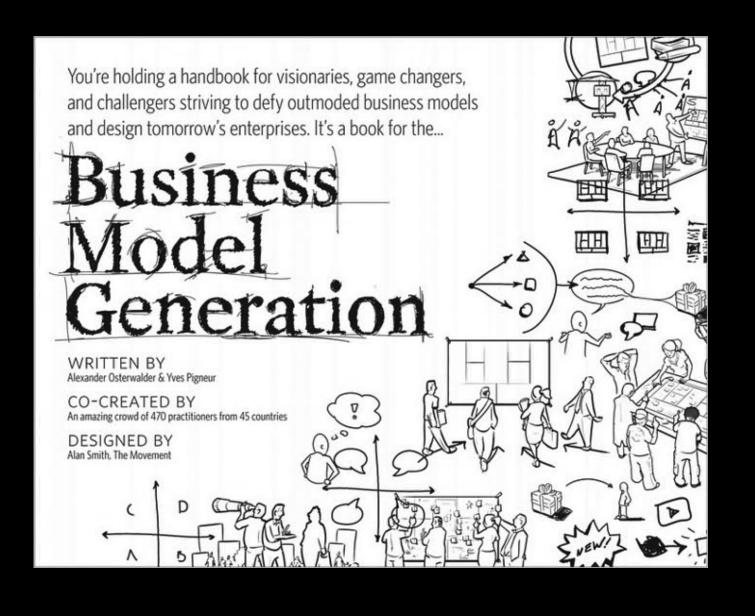
#### designed to search

# A temporary organization designed to search

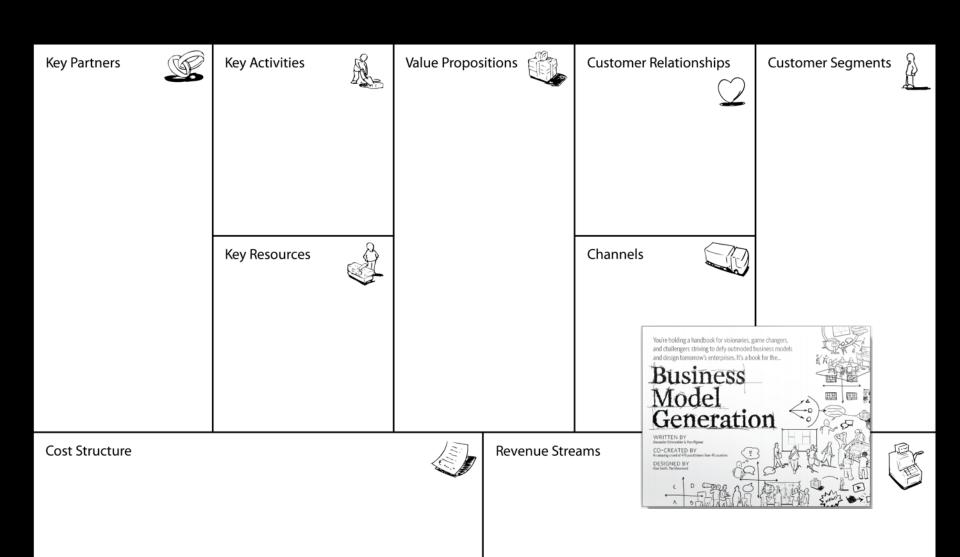
# for a repeatable and scalable business model

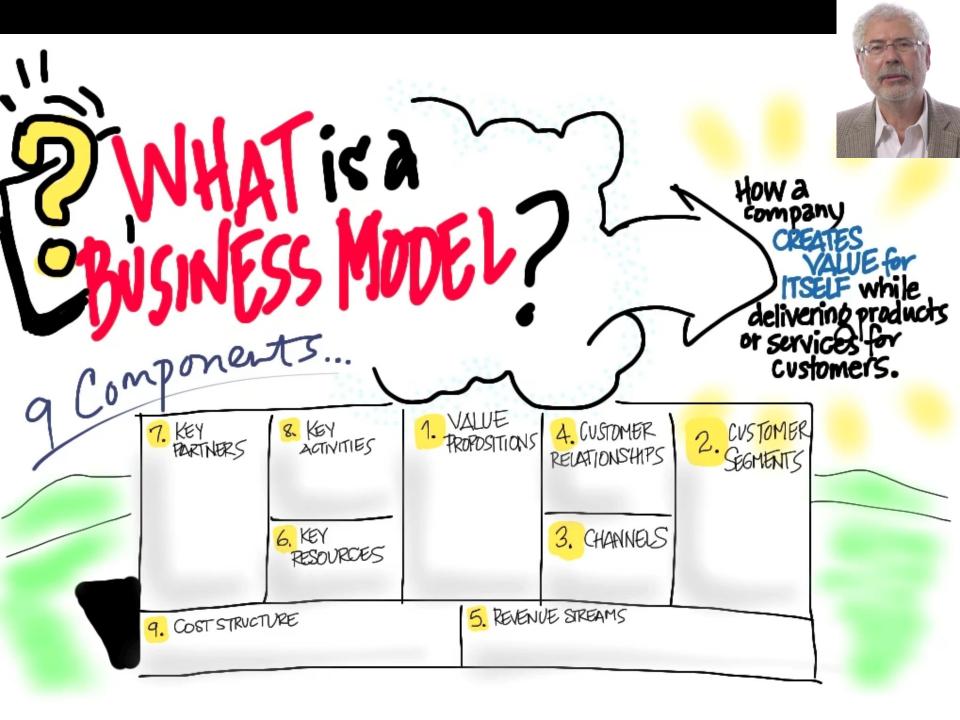
## A temporary organization designed to search for a repeatable and scalable business model

#### What's a Business Model?



#### Business Model Canvas

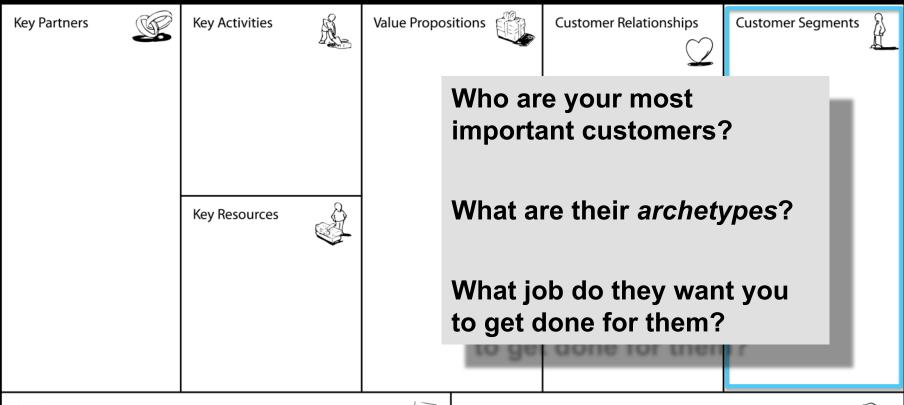




## ... or how you create, deliver, and capture value!

## ... or how a company *makes money!*

## Customer Segments

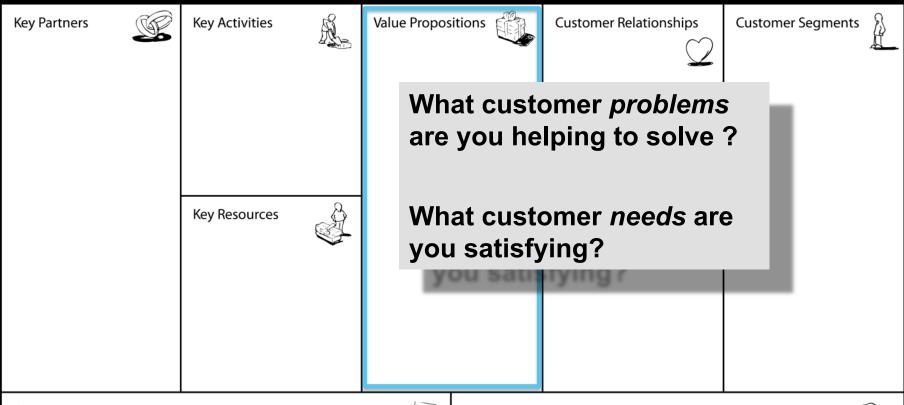


Cost Structure





## Value Propositions

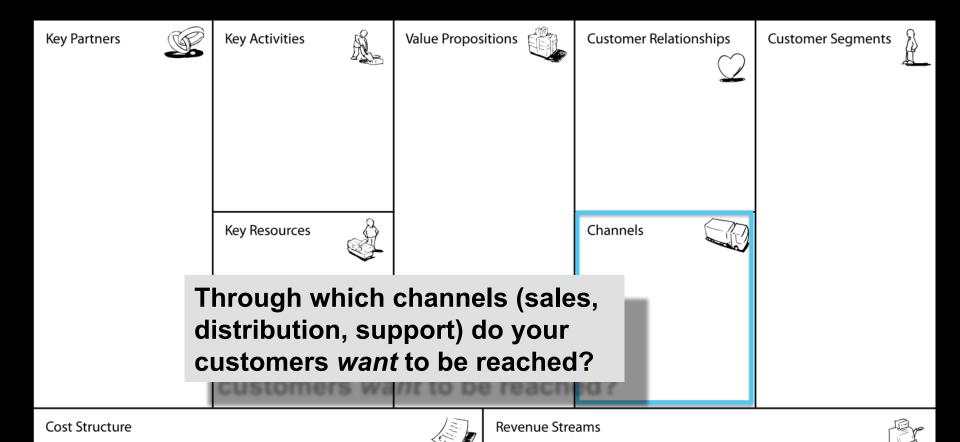


Cost Structure

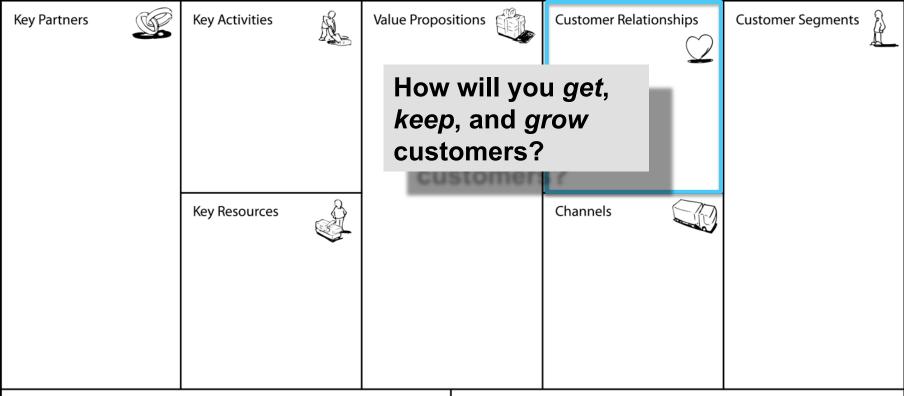




#### Channels



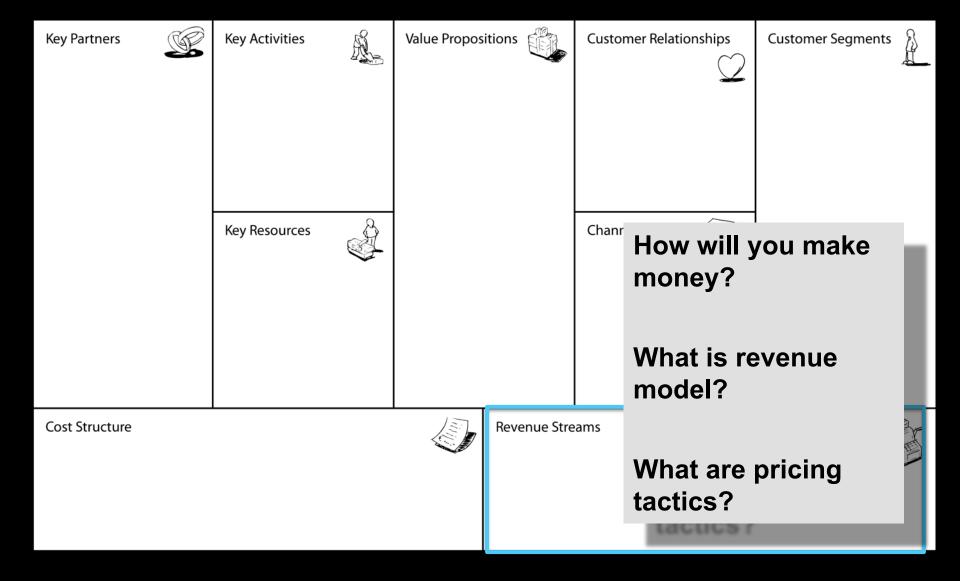
## Customer Relationships



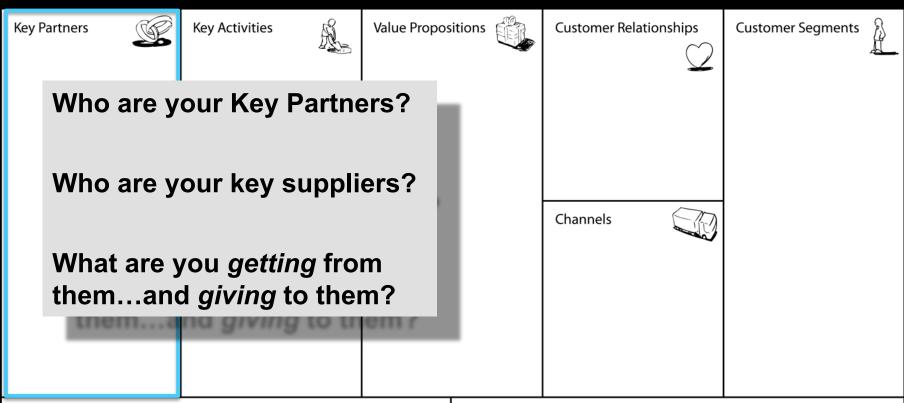
Cost Structure







## Key Partners

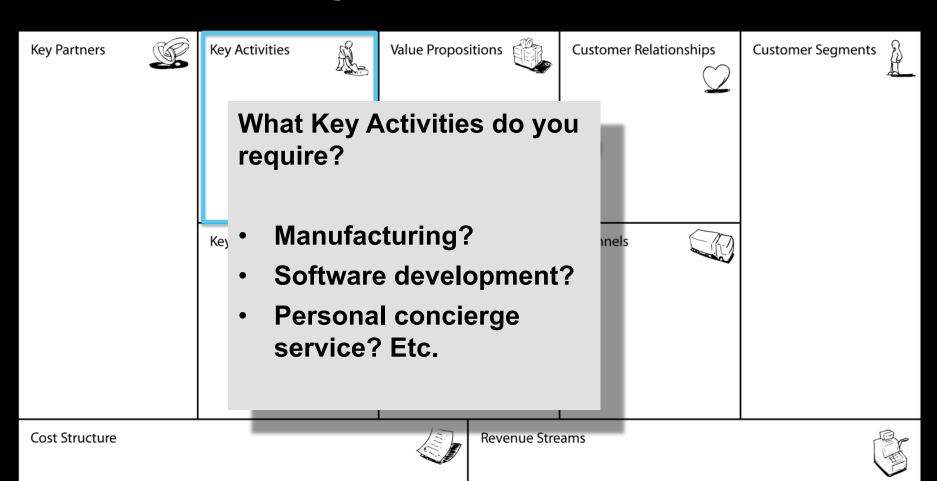


**Cost Structure** 





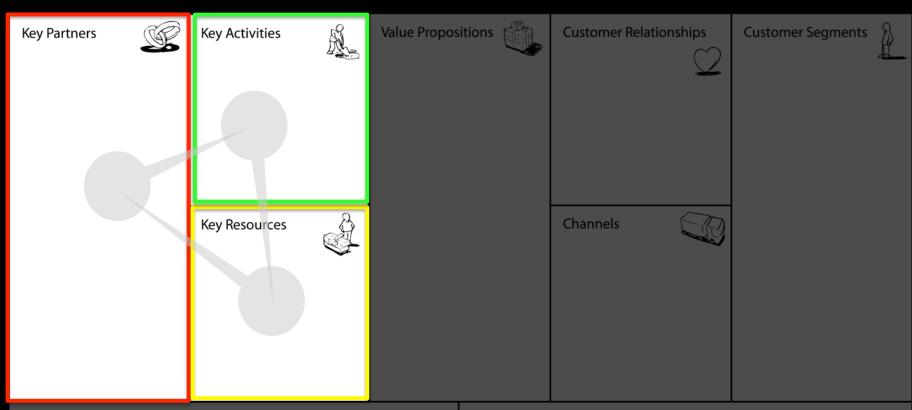
## Key Activities



## Key Resources

**Key Activities Value Propositions Customer Relationships Customer Segments Key Partners Key Resources** Channels **What Key Resources** do you require? Financial? Physical? Cost Structure Streams Intellectual property? **Human resources?** 

## Balancing Act



Cost Structure



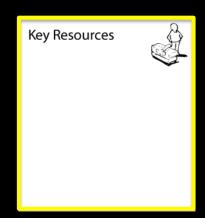








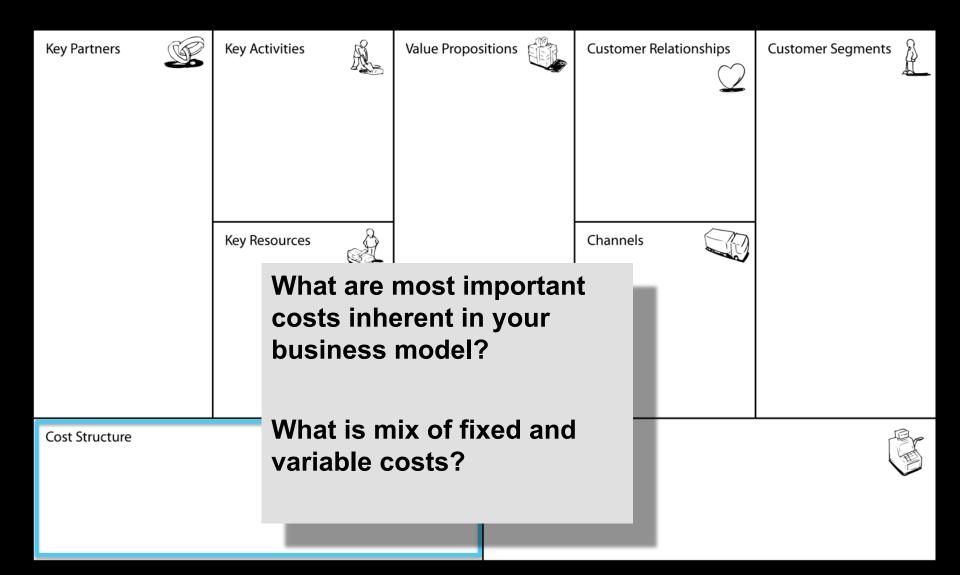
What will others do?



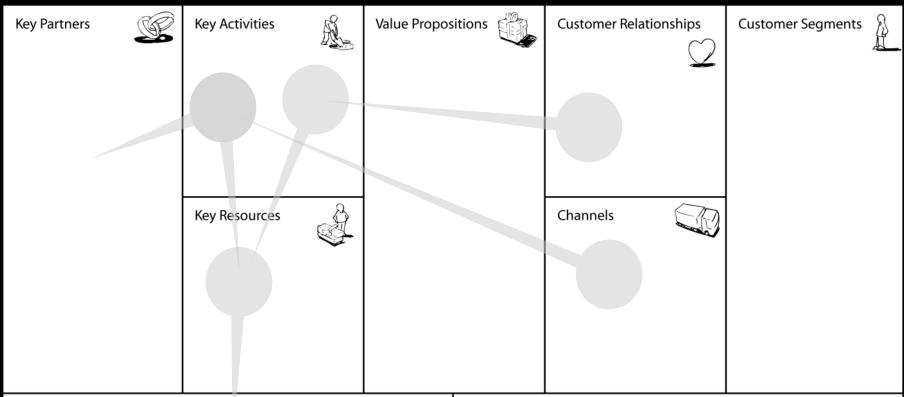
How will you support?

What will you do?

#### Cost Structure



## Remember Dependencies

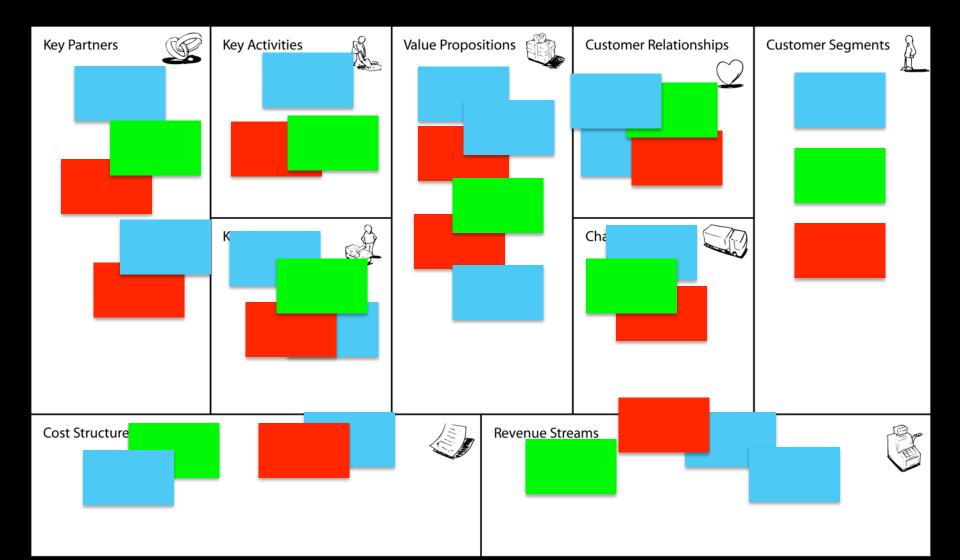


Cost Structure





### Remember Dependencies



## How do we build a

#### **Business Model?**

## Quick Review

## Starting Point

**Key Partners** 



**Key Activities** 

**Key Resources** 



Value Propositions



**Customer Relationships** 



**Customer Segments** 



**Guess** 

Guess

**Guess** 

**Guess** 

Guess

Guess

Channels

Guess

Cost Structure



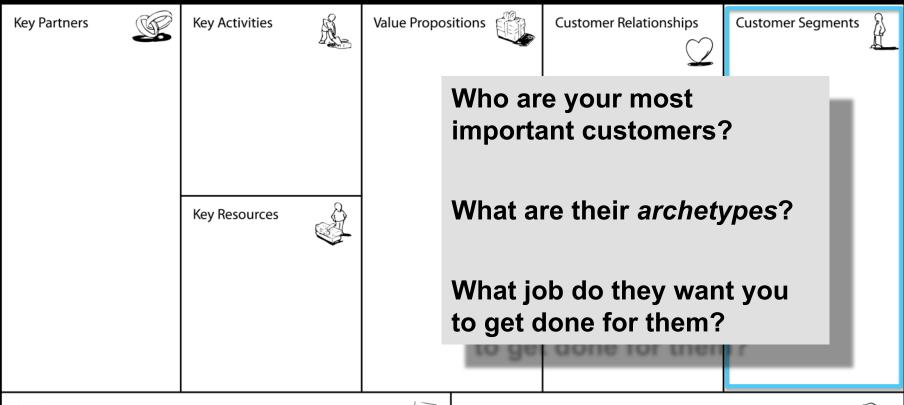
**Revenue Streams** 



**Guess** 

**Guess** 

## Customer Segments

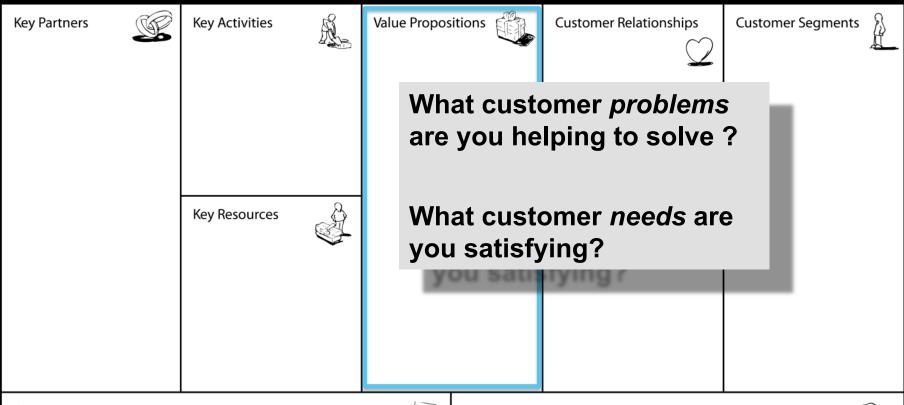


Cost Structure





## Value Propositions



Cost Structure





## Customer Discovery

# Customer Discovery in Four Steps

#### Step 1: State your Guesses

Value Propositions **Key Partners Key Activities Customer Segments Customer Relationships** Guess Guess Guess Guess Guess **Key Resources** Channels Guess Guess

**Cost Structure** 

Guess



Revenue Streams



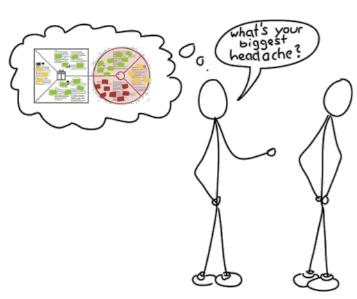
Guess

**Value Propositions** 



**Customer Segments** 





**Value Propositions** 



**Customer Segments** 

headache?



**Identify customer** problems and needs

Value Propositions



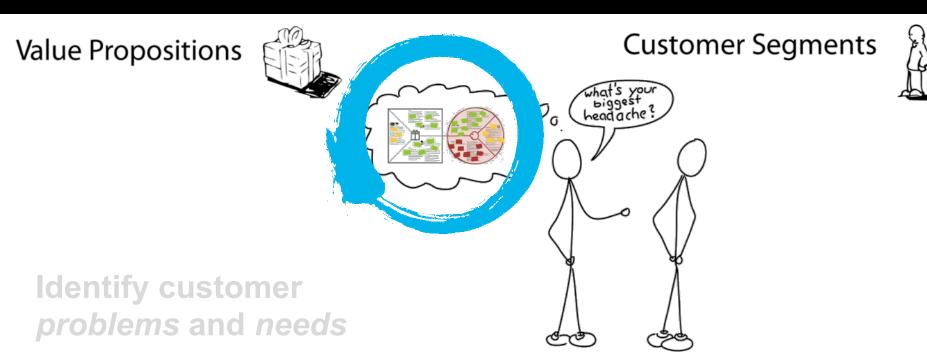
**Customer Segments** 

headache?



Identify customer problems and needs

Test hypotheses about CS and VPs...



Test hypotheses about CS and VPs...

...iterate and pivot

#### Step 3: Test the Solution

**Value Propositions** 



**Customer Segments** 





#### Step 3: Test the Solution

**Value Propositions** 



**Customer Segments** 





Test minimum viable product features

#### Step 3: Test the Solution

Value Propositions



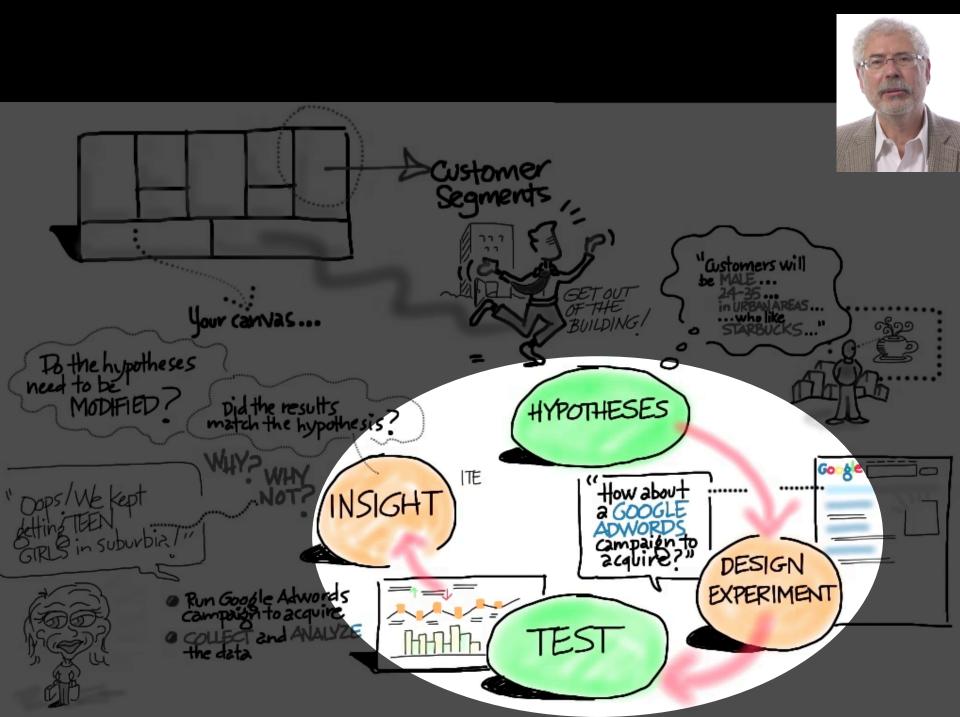
**Customer Segments** 

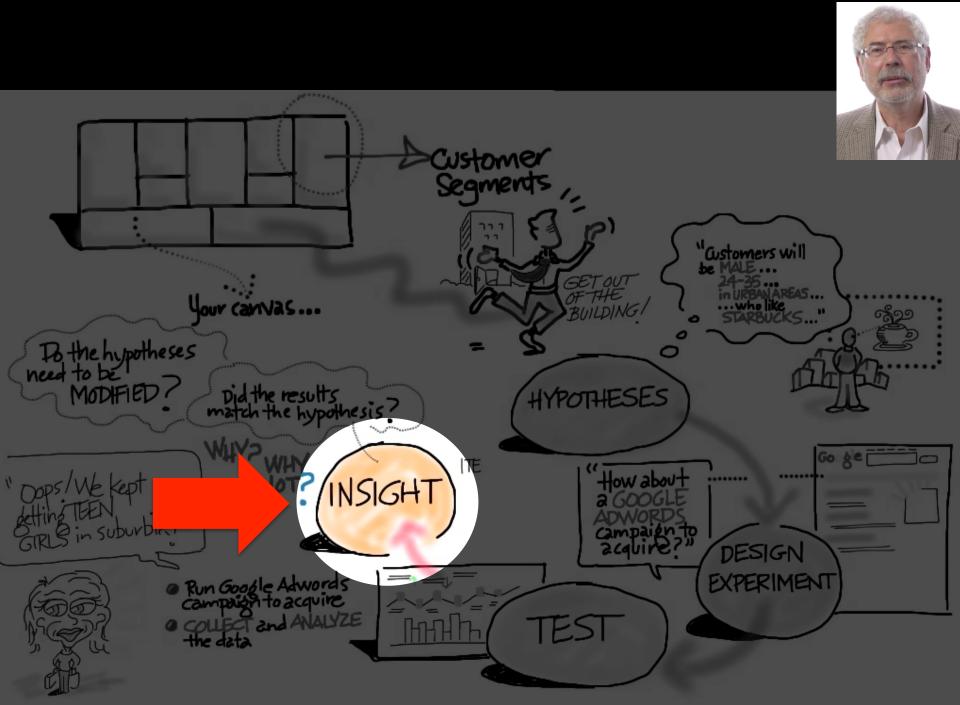




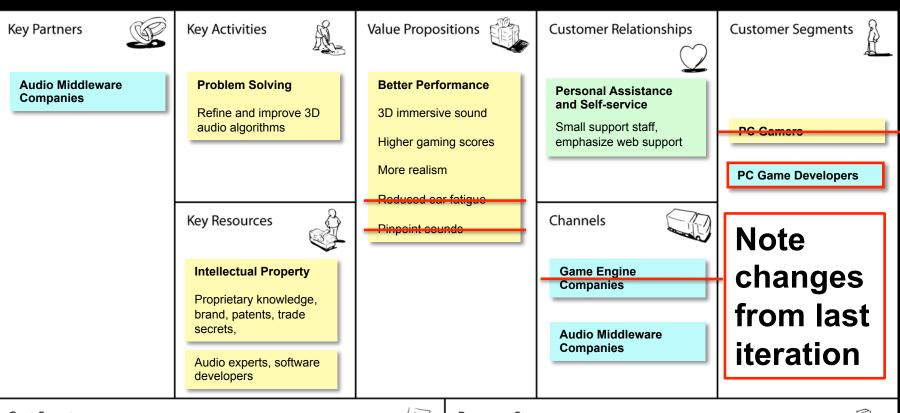
Test minimum viable product features

Do they satisfy problems or needs?





## Insights Drive Changes



#### Cost Structure

Audio & Software Engineers IP License Fee to UMD

Software development tools



SW License, Per Title, Per Seat for Plug-in



#### Step 4: Pivot

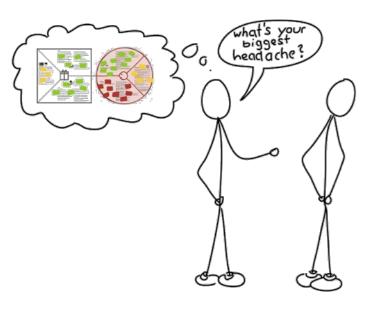
Value Propositions

New Guess



**Customer Segments** 





New Guess

## Step 4: Pivot or Proceed

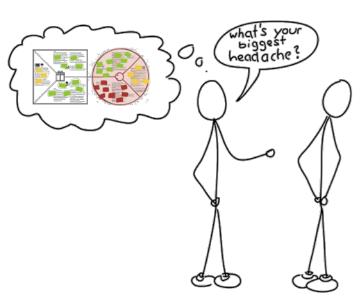
**Value Propositions** 



**Customer Segments** 

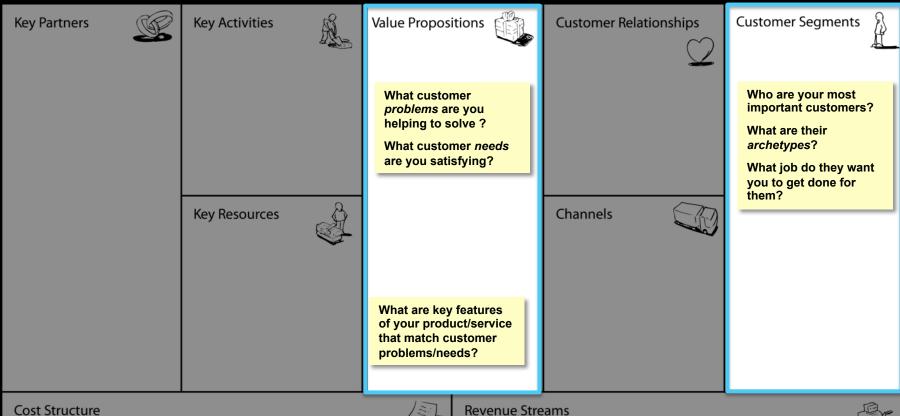


**Fact** 



**Fact** 

## Customer Discovery starts here...















**Key Activities** Value Propositions **Key Partners Customer Relationships Customer Segments Key Resources** Channels

**Cost Structure** 



**Revenue Streams** 





## Who are your most important customers?



Who are your most important customers?

What are their archetypes?



Who are your most important customers?

What are their archetypes?

What job do they want you to get done for them?

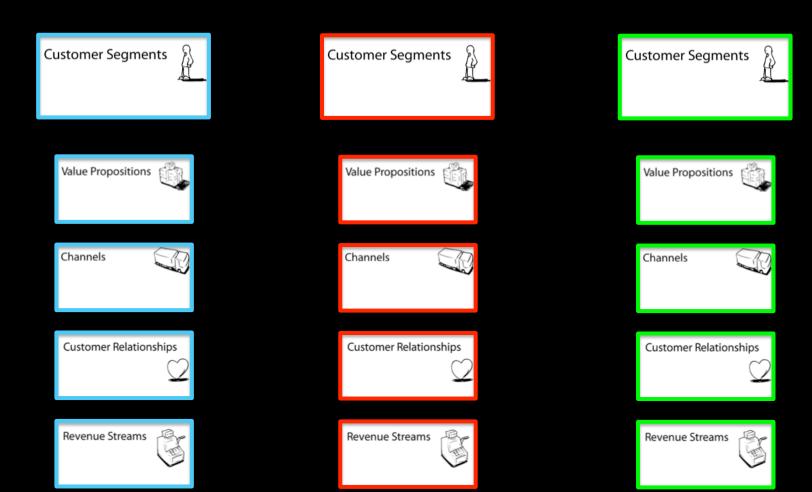


Who are your most important customers?

What are their archetypes?

What job do they want you to get done for them?

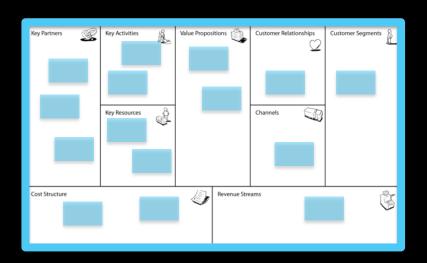
# Why do you want to group customers into Customer Segments?

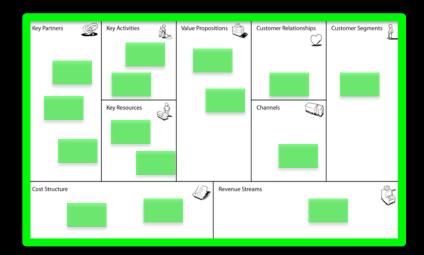


## Different Customer Segments often have

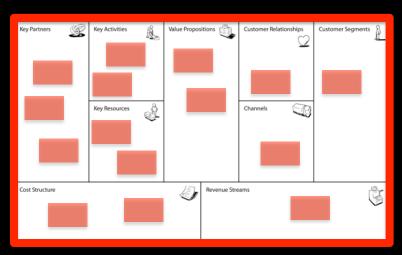
Different Business Models

#### **Customer Segment #2**

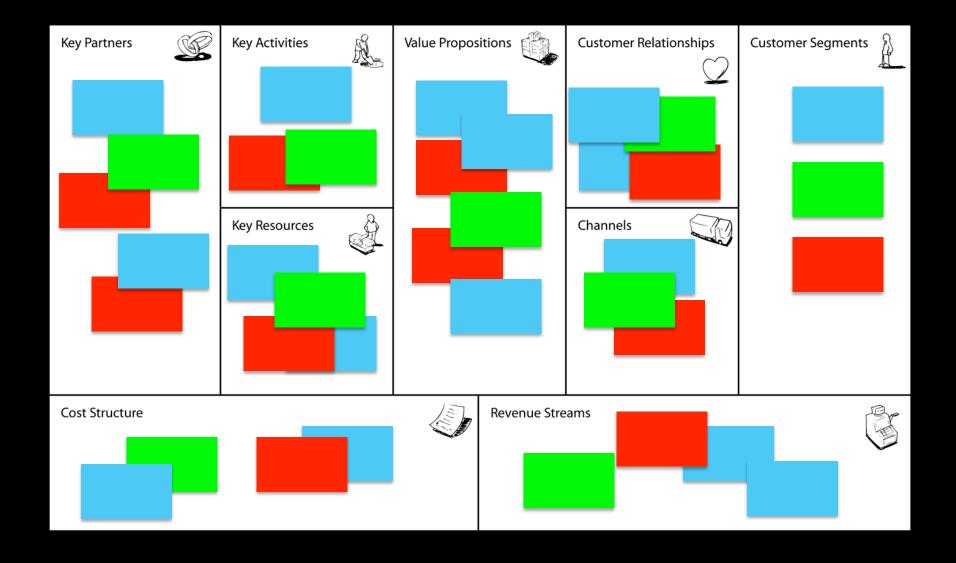




#### **Customer Segment #3**



## Customer Segments #1, #2, #3



## Customer Segments have



#### **Customer Types**

End User



- End User
- Influencer



- End User
- Influencer
- Recommender



- End User
- Influencer
- Recommender
- Decision Maker

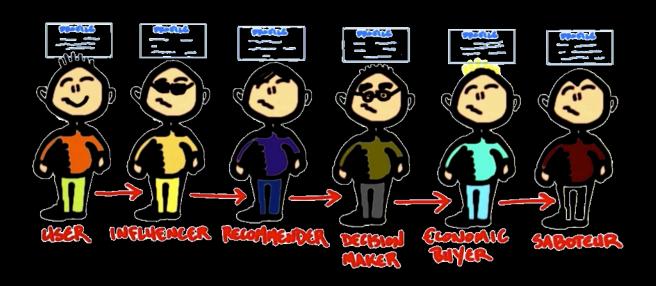


- End User
- Influencer
- Recommender
- Decision Maker
- Payer



- End User
- Influencer
- Recommender
- Decision Maker
- Payer
- Saboteur

## Identify Archetypes



to understand purchase decision







...typically have distinct End Users



...typically have distinct End Users, Decision Makers





...typically have distinct End Users, Decision Makers, Payers



...typically have distinct End Users, Decision Makers, Payers, and others.



...typically have distinct End Users, Decision Makers, Payers, and others.



...may as well!

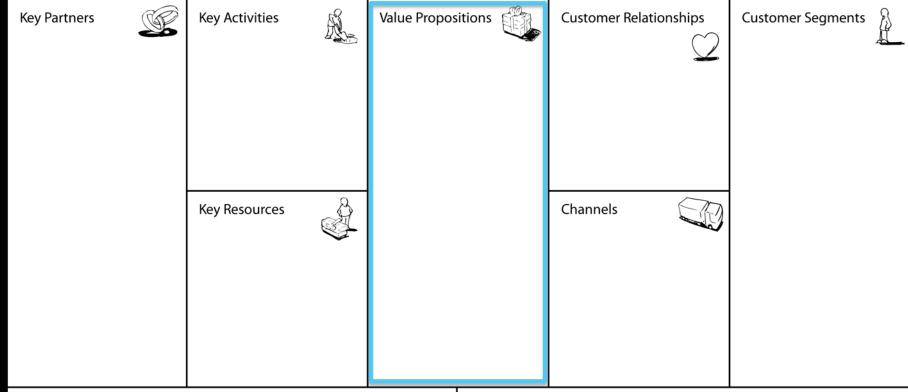






## Value Propositions

### Value Propositions



Cost Structure



**Revenue Streams** 







What customer *problems* are you helping to solve?

What customer *needs* are you satisfying?

# What about my idea / technology / product?

# What about my idea / technology / product?

Customers don't care about your idea...
they are trying to solve a problem or satisfy a need.

### What, How, Why?

Product, Features, Value

### What?

### What?

### Product

### How?

### How?

Features

## Why?

Why?

Value

### **Product Features**



### Value Propositions

# 

...but they do deliver it.



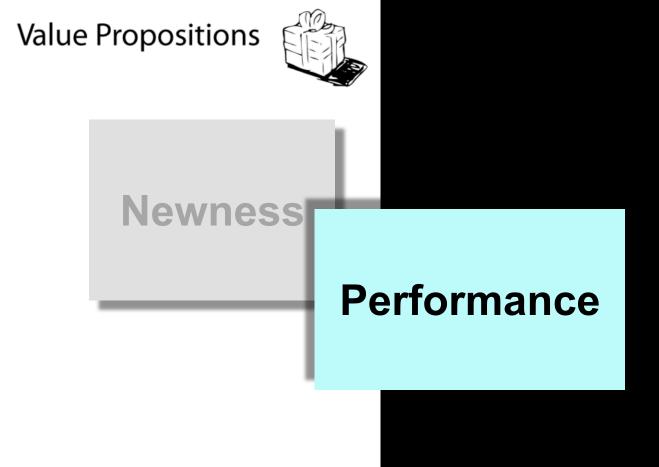


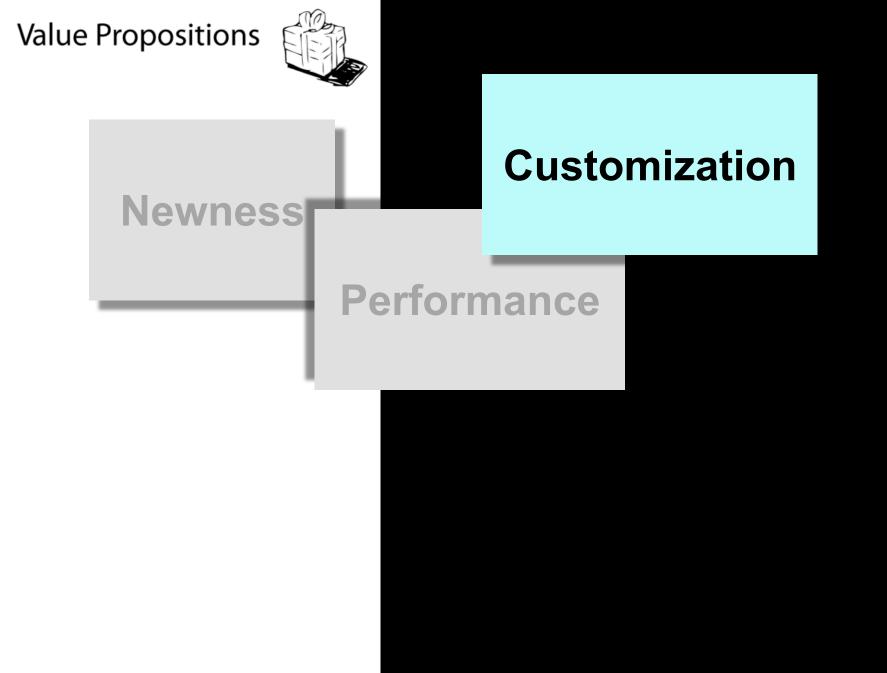
# What are some categories of Value Propositions...

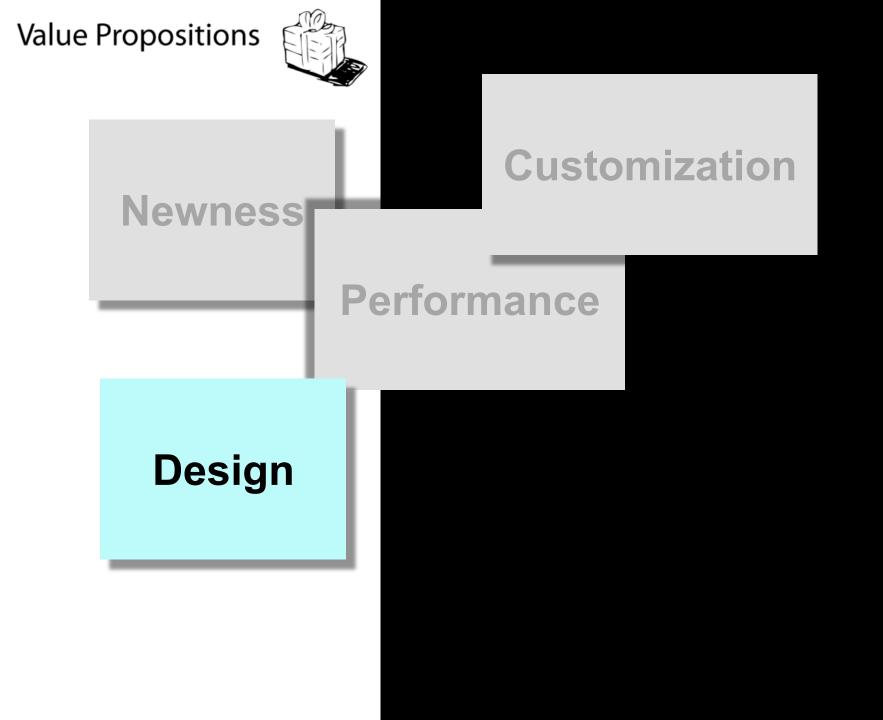
#### **Value Propositions**

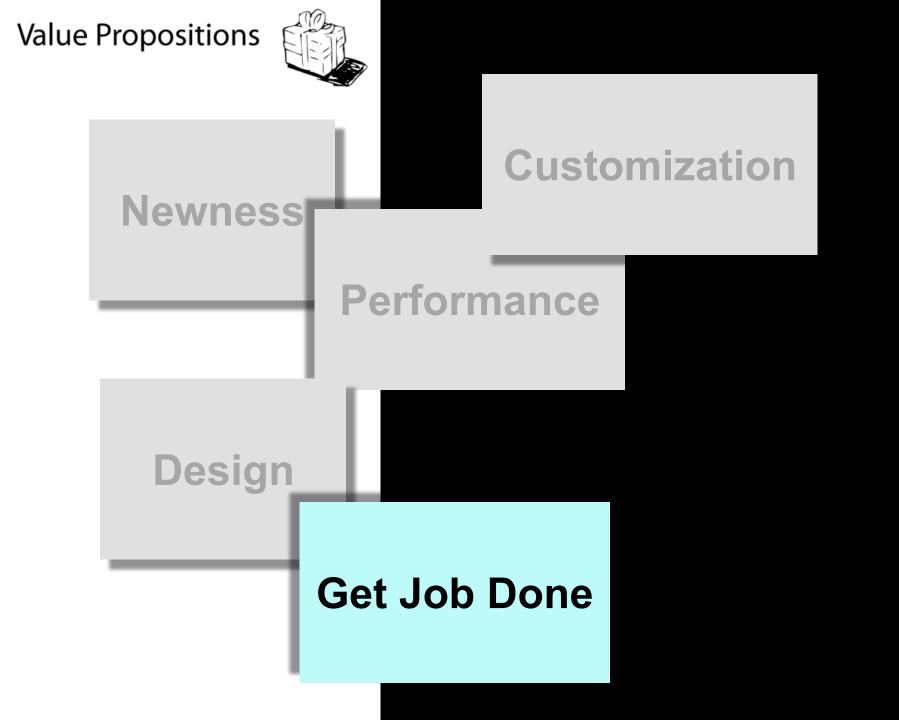


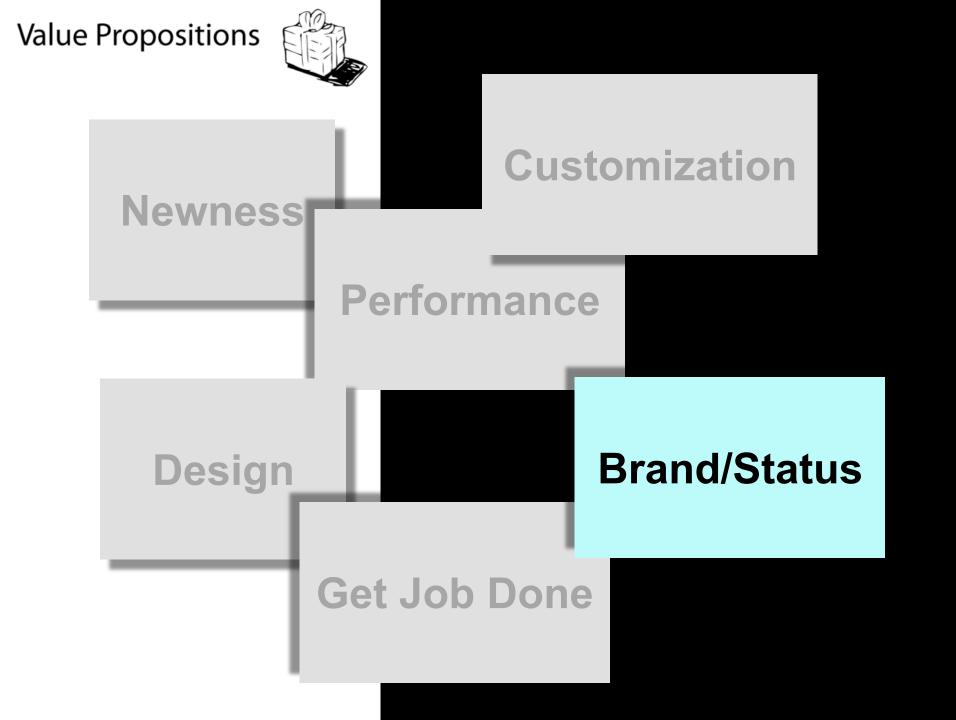
#### **Newness**







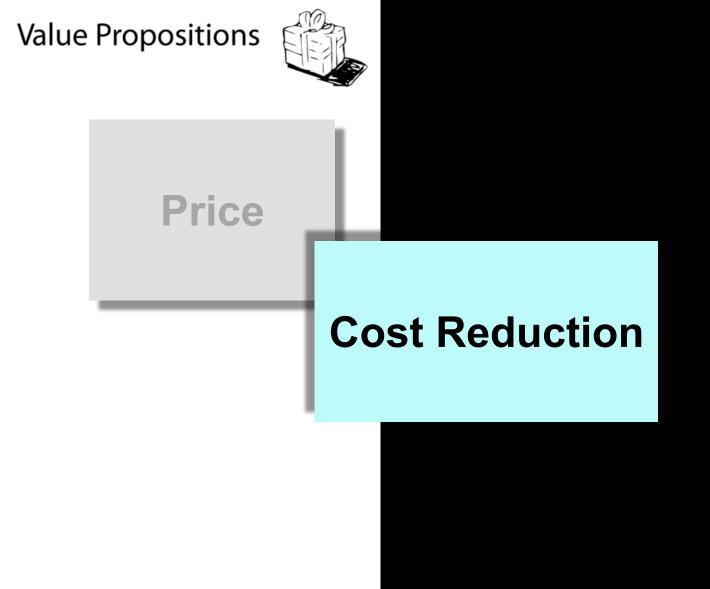


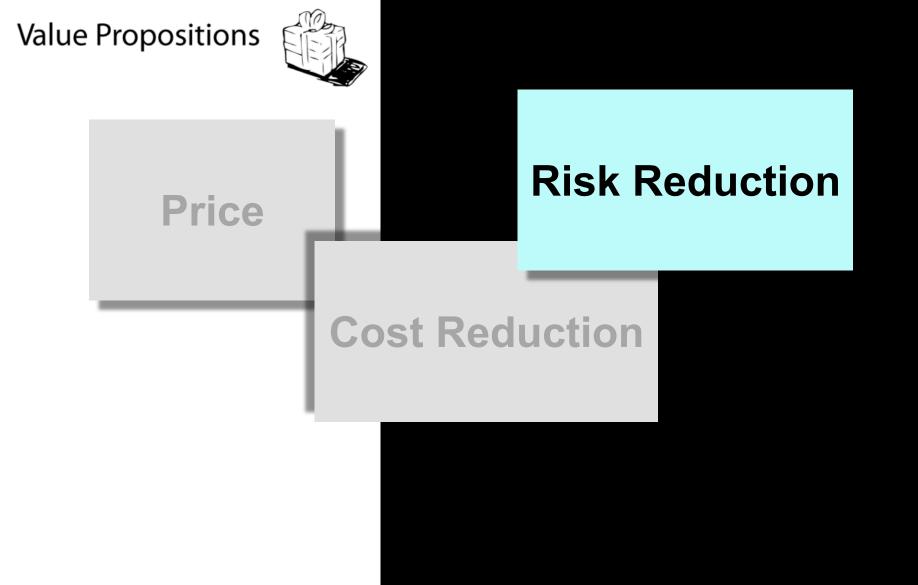


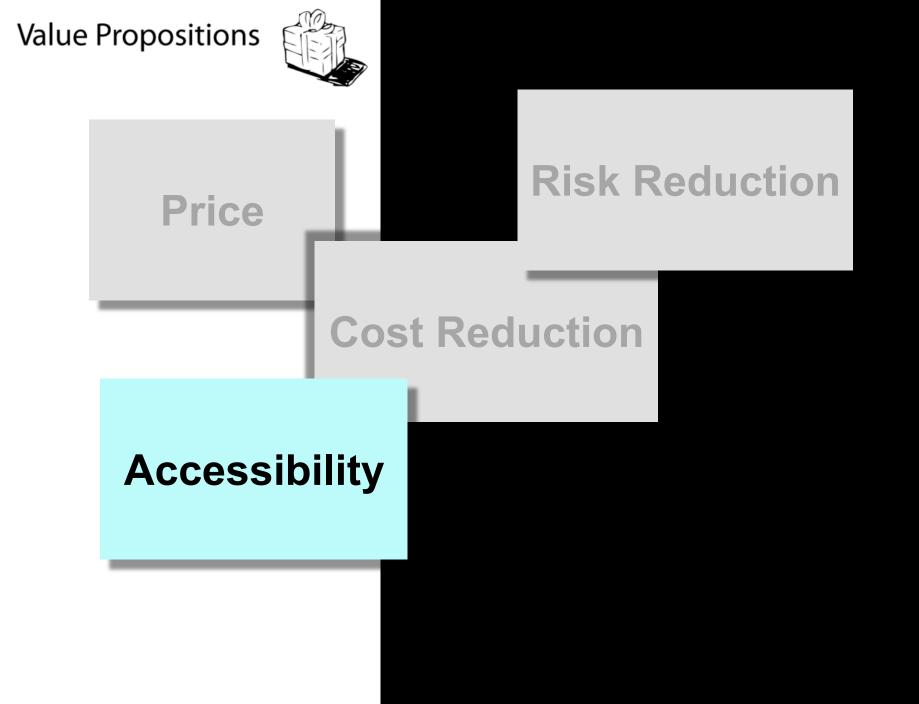
#### **Value Propositions**

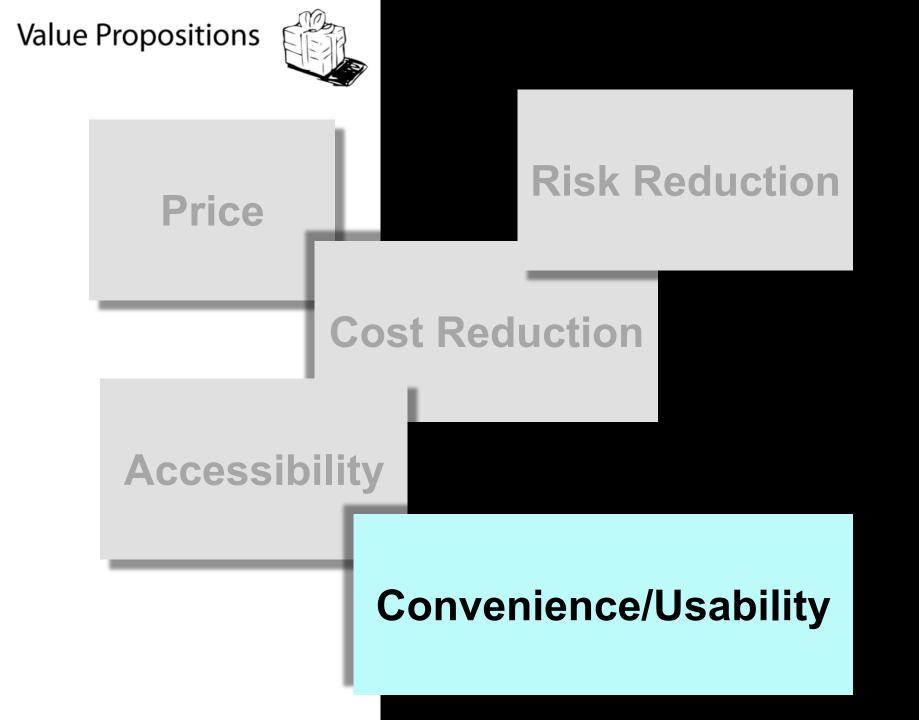


#### **Price**









### Some Examples



Feature = Bright Colors



Value = User Feels Cool!

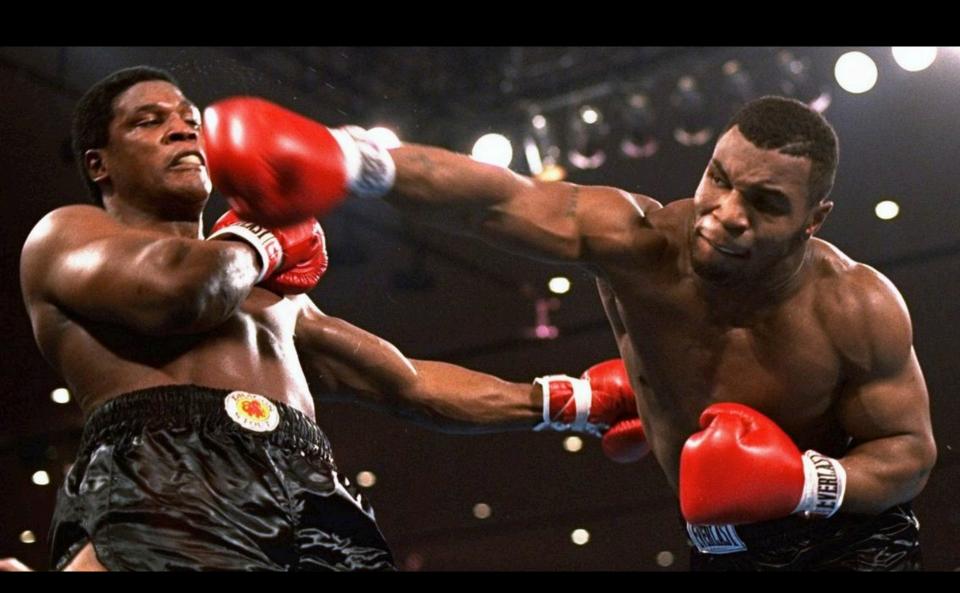
## Features - Value

...but they do deliver it.

### Gain Creators

### Pain Killers

### Remember Tyson's Law



### Another Refinement

### Customer Segments

### Customer Segments

### Customer Sub-Segments

## Customer Sub-Segments

## Customer Types



## **Hospitals**

# **Primary Care Clinics**



## **Hospitals**

Primary Care
Clinics

## Customer Sub-Segments



## **Hospitals**

Group University Teaching Hospitals	Definition Those large hospitals with over 400 licensed beds, a scope of service index over 100, heavy teaching emphasis (over 700 intern hours per bed) and either are the primary-training site for a university which has a school of medicine or has over 1,000 intern hours per bed.
Major (Non-University) Teaching Hospitals	Those hospitals with over 500 intern hours per bed that do not qualify as a university teaching hospital.
Large Teaching Emphasis Hospitals	Those hospitals over 300 licensed beds and between 200 and 550 intern hours per bed.
Medium/Small Teaching Emphasis Hospitals	Those hospitals under 300 beds with between 200 and 550 intern hours per bed.
Extremely Large Sized Hospitals	Those urban hospitals with 500 or more licensed beds that do not qualify for any other group.
Large Sized Hospitals	Those urban hospitals with at least 380 but under 500

licensed beds that do not

qualify for any other



## **Hospitals**

# Customer Sub-Segments

**University Teaching Hospitals** 

Major (Non-University)
Teaching Hospitals

# Not Done

# Customer Types



## Find the people!

## **University Teaching Hospitals**

End User



## Find the people!

- End User
- Decision Maker



## Find the people!

- End User
- Decision Maker
- Payer



## Find the people!

- End User
- Decision Maker
- Payer
- Influencer



## Find the people!

- End User
- Decision Maker
- Payer
- Influencer
- Recommender



## Find the people!

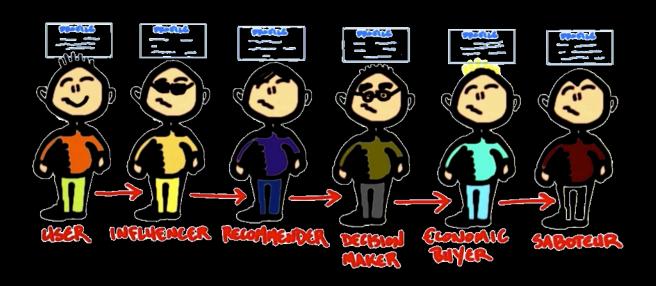
- End User
- Decision Maker
- Payer
- Influencer
- Recommender
- Saboteur



## **Customer** *Types*

- End User
- Decision Maker
- Payer
- Influencer
- Recommender
- Saboteur

## Identify Archetypes



to understand purchase decision

## User Archetype

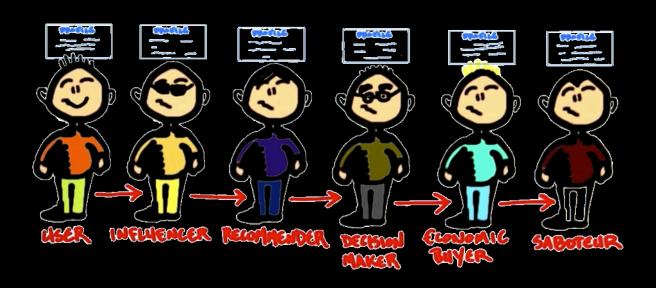






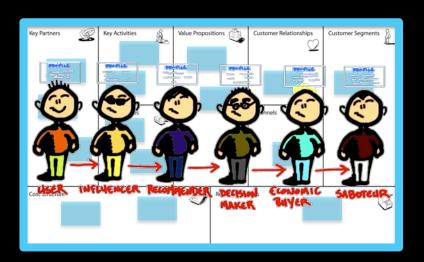


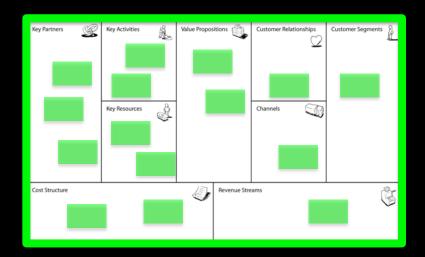
## Identify Archetypes

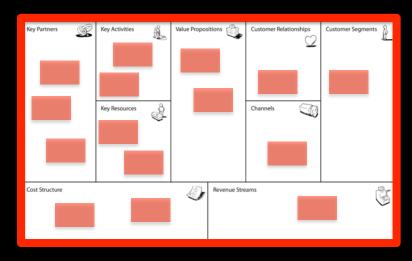


for each Customer Segment

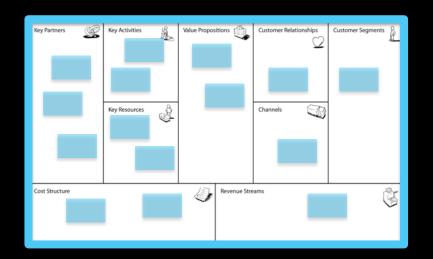
#### **Customer Segment #2**

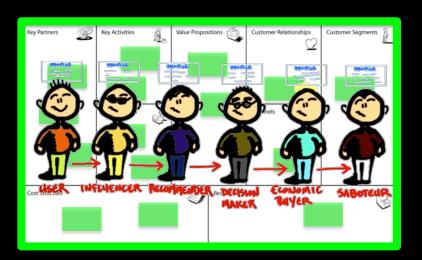


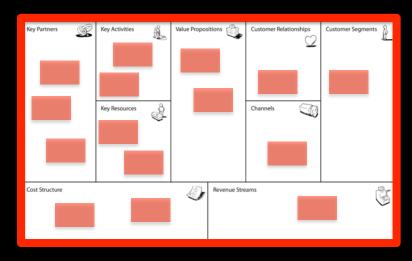




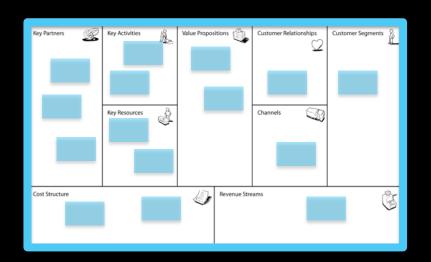
#### **Customer Segment #2**



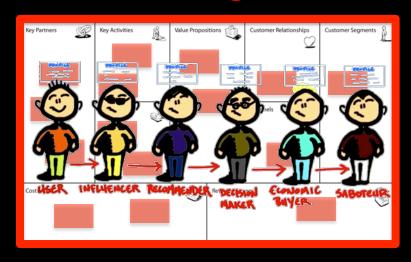




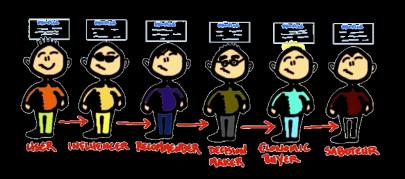
#### **Customer Segment #2**

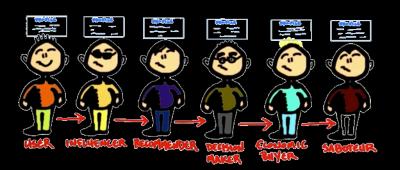


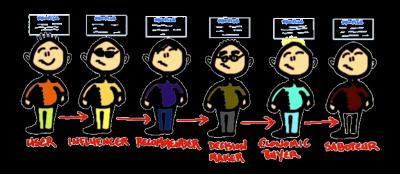




## **Customer Segment #2**







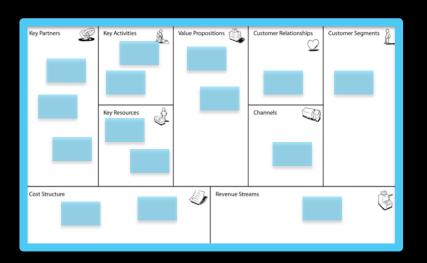
# Why do we group into Customer Segments?

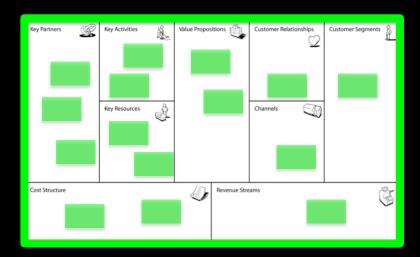
# Different Customer Segments often have...

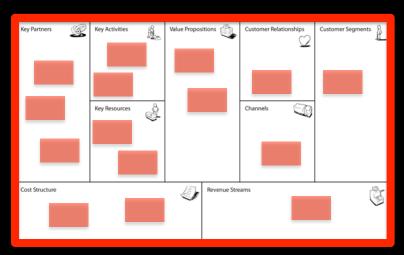
# Different Customer Segments often have...

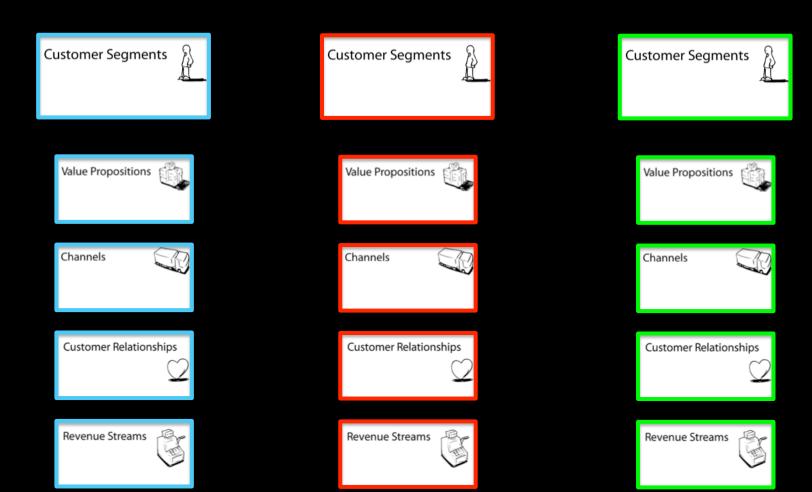
## Different Business Models

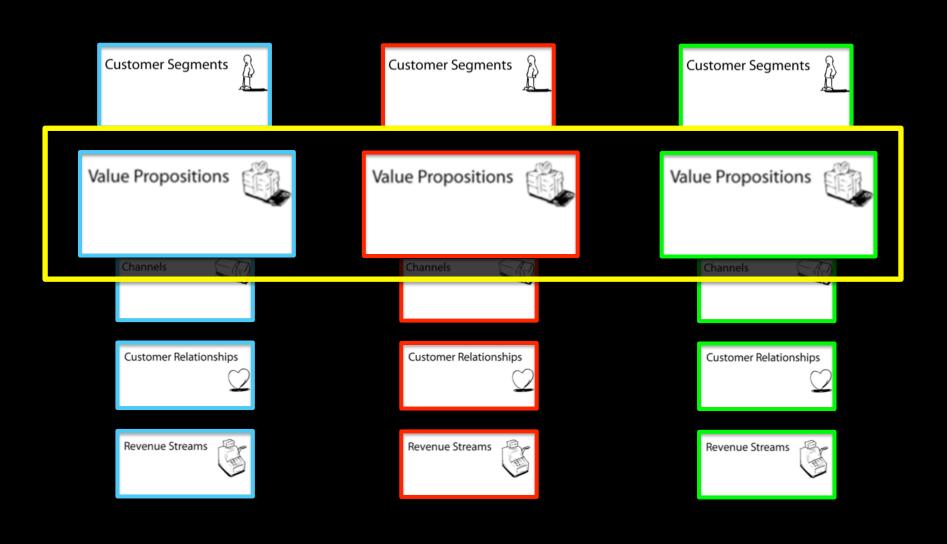
#### **Customer Segment #2**





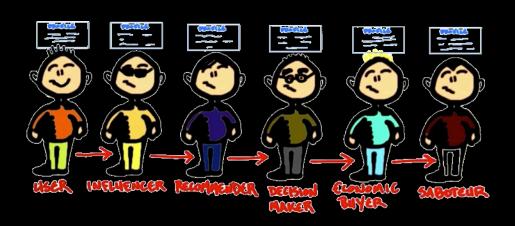






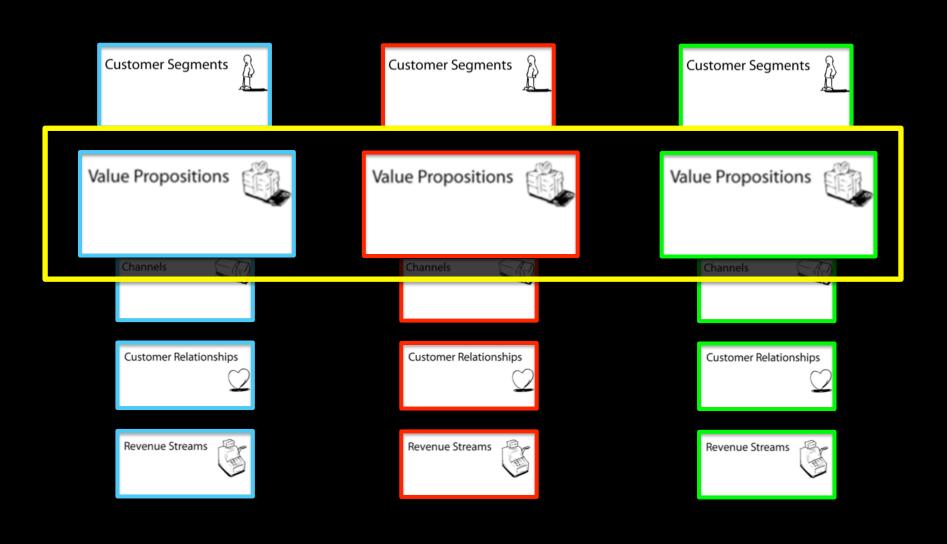
## But Remember

# Different Customer Types also often have...



# Different Customer Types also often have...

## Different Value Propositions



How to create products and services customers want.

Get started with...

Value Proposition Design

strategyzer.com/vpd

#### Written by

Alex Osterwalder Yves Pigneur Greg Bernarda Alan Smith

#### Designed bu

Trish Papadakos

WILEY



Series

Sequel to

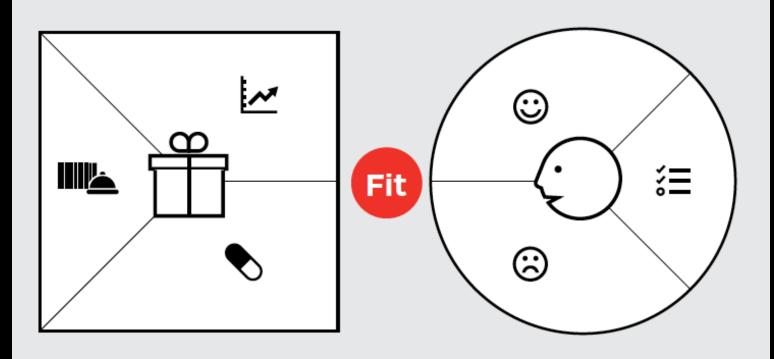
Business Model Generation

International Bestseller 30+ Languages



#### value map

### customer profile

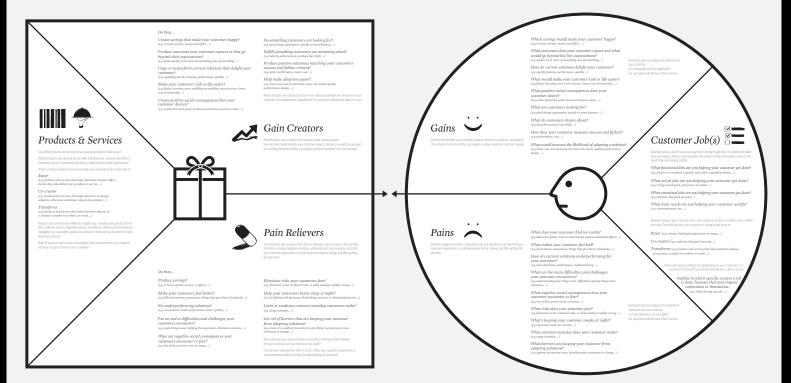


#### The Value Proposition Canvas

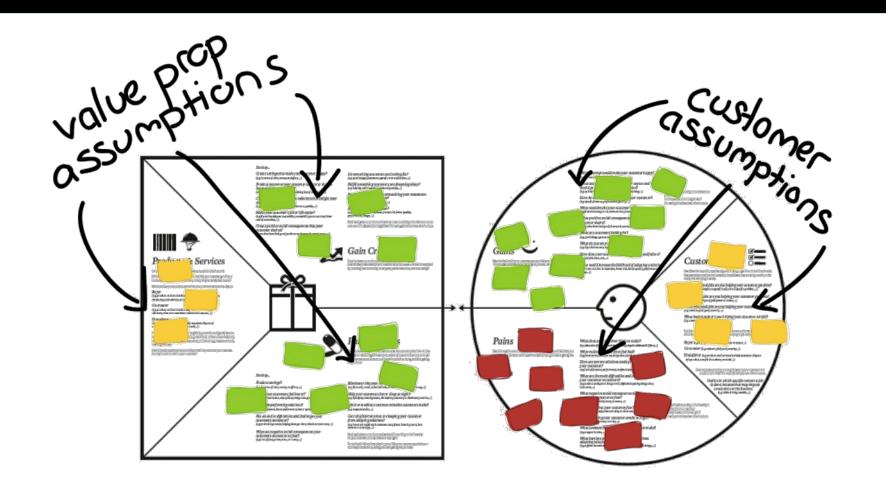
Designed for:

Designed by:

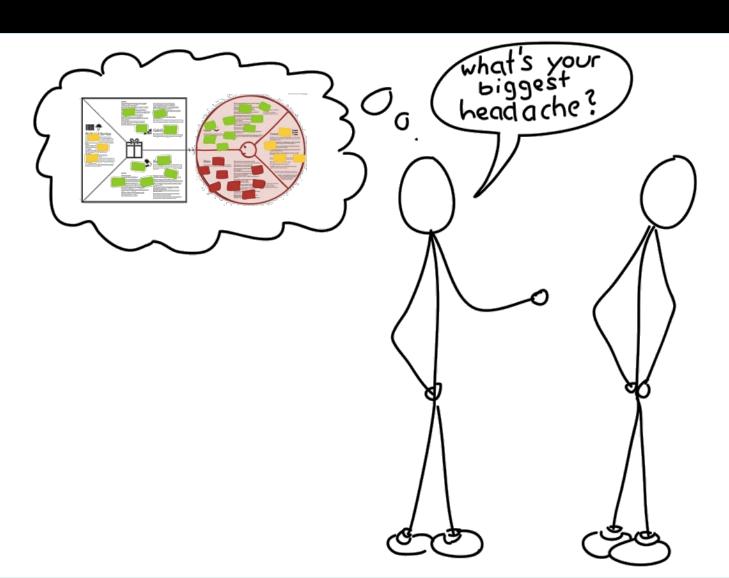




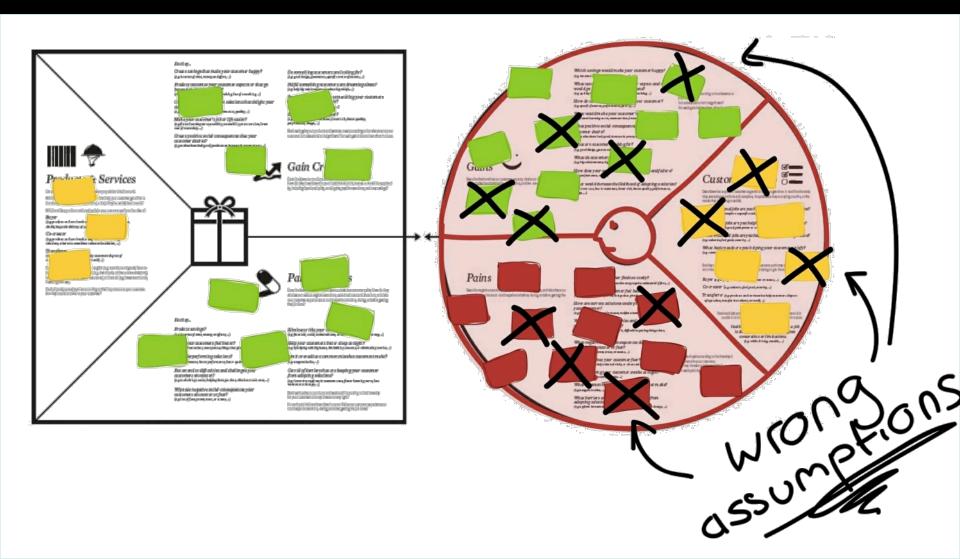
## Step 1: Fill Out Value Proposition Canvas



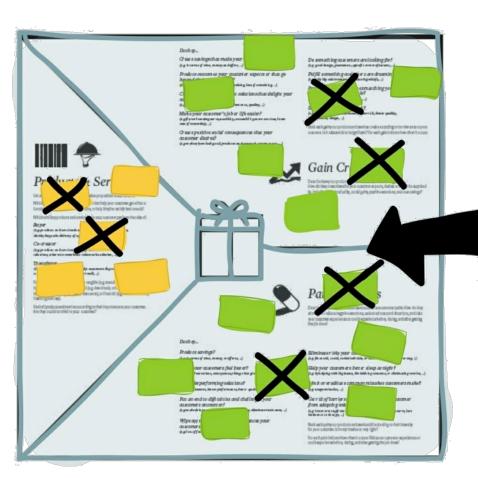
# Step 2: Test Customer Assumptions

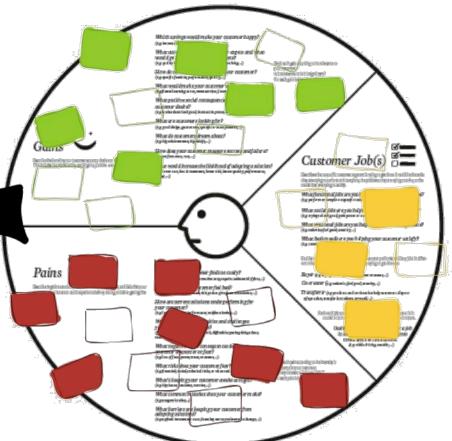


## Step 3: Adjust Customer Assumptions

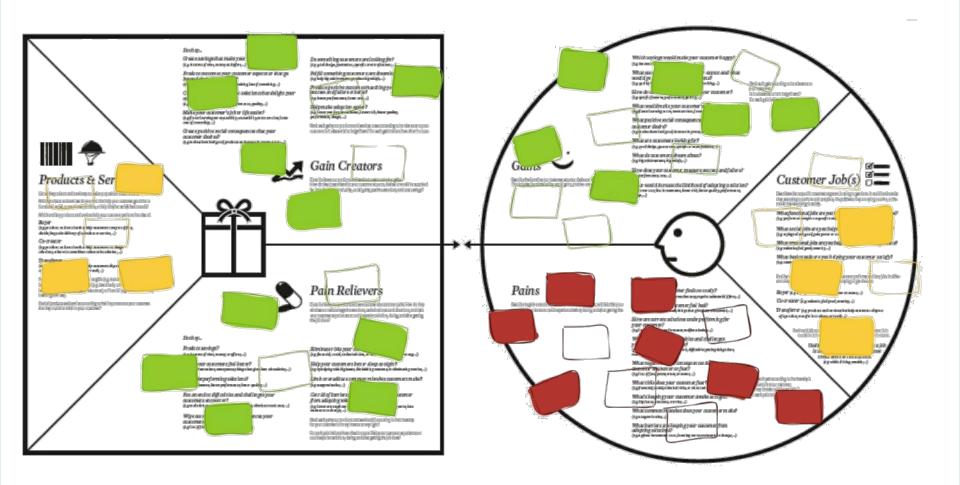


## Step 4: Redesign Value Proposition



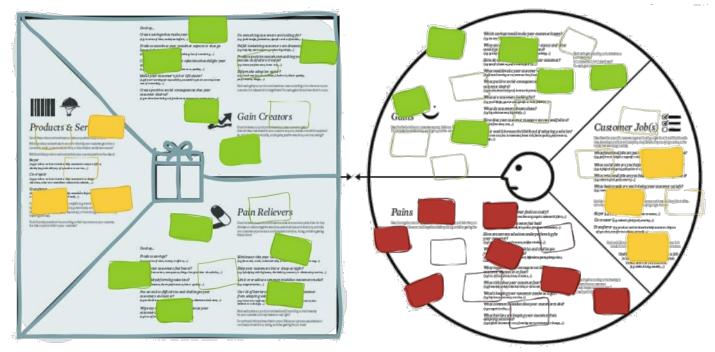


# Step 4b: Adjust VP Canvas



## **Step 5: Test Value Proposition with MVP**

Test with MVP







## 1. The Warm Up

- What is your name and role at your company?
- How do you fit into your company's department structure? Overall in the company?
- What is your budget like? Who has to approve your purchases?
- How do you discover new products for work?
   Do you need any approval to try them?
- Have you tried anything new recently?
- What is a typical day like on your job?
- How much time do you spend doing [task X]?

### 2. Test the Problem

- What are top 3 challenges you face in your job?
- What are top 3 challenges you face in your job related to [your startup space/sector]?
- If you could wave a magic wand and instantly have a solution to any of those problems...what would the solution be?
- Dig deeper into their typical day on anything that sounds painful or expensive.
- How have you dealt with or solved [problem X]?

#### 3. Test the Solution

- Walk them through the problems you believe your solution solves. Do they agree?
- Does [your solution] solve any of their problems?
- Would you be willing to pay for our solution? How much? Would [X] be reasonable?
- If they're willing to pay your price and like the idea then..."Would you be willing to start right away?"

## 1. The Warm Up

- What is your name and role at your company?
- How do you fit into your company's department structure? Overall in the company?
- What is your budget like? Who has to approve your purchases?
- How do you discover new products for work?
   Do you need any approval to try them?
- Have you tried anything new recently?
- What is a typical day like on your job?
- How much time do you spend doing [task X]?

#### 2. Test the Problem

- What are top 3 challenges you face in your job?
- What are top 3 challenges you face in your job related to [your startup space/sector]?
- If you could wave a magic wand and instantly have a solution to any of those problems...what would the solution be?
- Dig deeper into their typical day on anything that sounds painful or expensive.
- How have you dealt with or solved [problem X]?

#### 3. Test the Solution

- Walk them through the problems you believe your solution solves. Do they agree?
- Does [your solution] solve any of their problems?
- Would you be willing to pay for our solution? How much? Would [X] be reasonable?
- If they're willing to pay your price and like the idea then..."Would you be willing to start right away?"