

Advancing Student Innovation & Impact

2025 COMMUNITY COLLEGE INNOVATION CHALLENGE



CUSTOMER DISCOVERY BEST PRACTICES

CCIC

Affiliations



Grant Warner



Founding Member



Innovate Egypt - Cairo



GIST Senegal - Dakar



KIC Start Korea - Seoul

HOUSEKEEPING

PLEASE USE THE CHAT BOX TO ENTER YOUR QUESTIONS.







A 3D rendering of a puzzle with one red piece standing out among many grey pieces. The red piece is the central focus, positioned slightly to the right of the center. The grey pieces are arranged in a grid-like pattern around it, with some pieces missing, creating a sense of a puzzle being solved or in progress. The lighting is soft, highlighting the texture and depth of the pieces.

PITCH SHOWS HOW YOUR PRODUCT
SOLVES THEIR PROBLEM

Message Triangle



TARGET: Identify the Target



Top Vertex: Pain/Gain and Proof. Enter cues and prompts that remind you to articulate and validate this Target's problem, need, or opportunity.



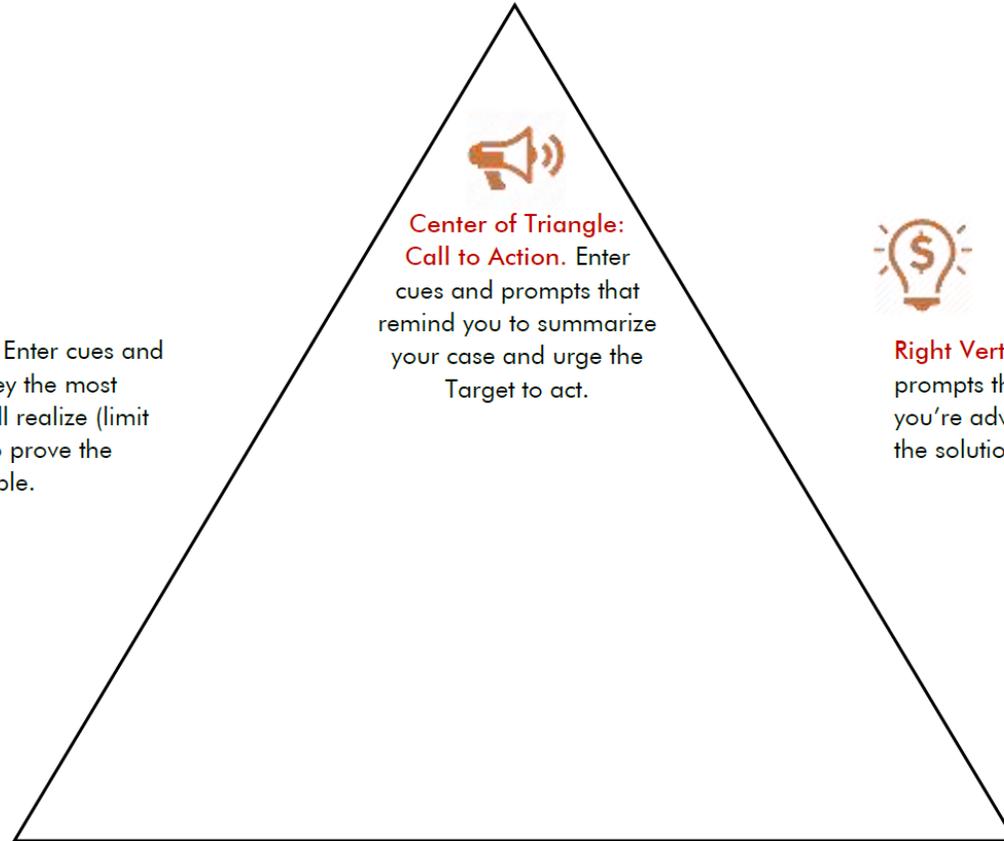
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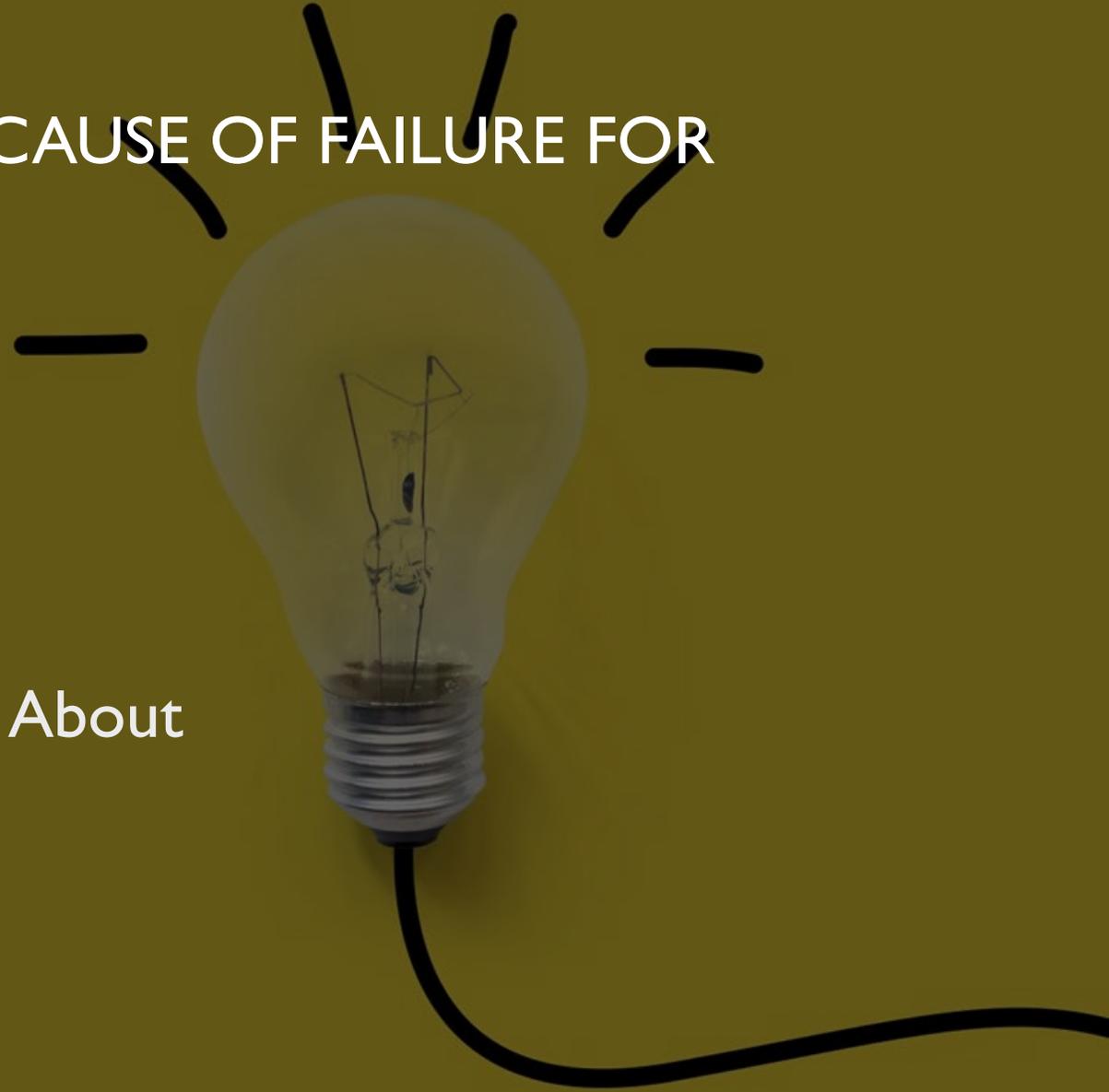


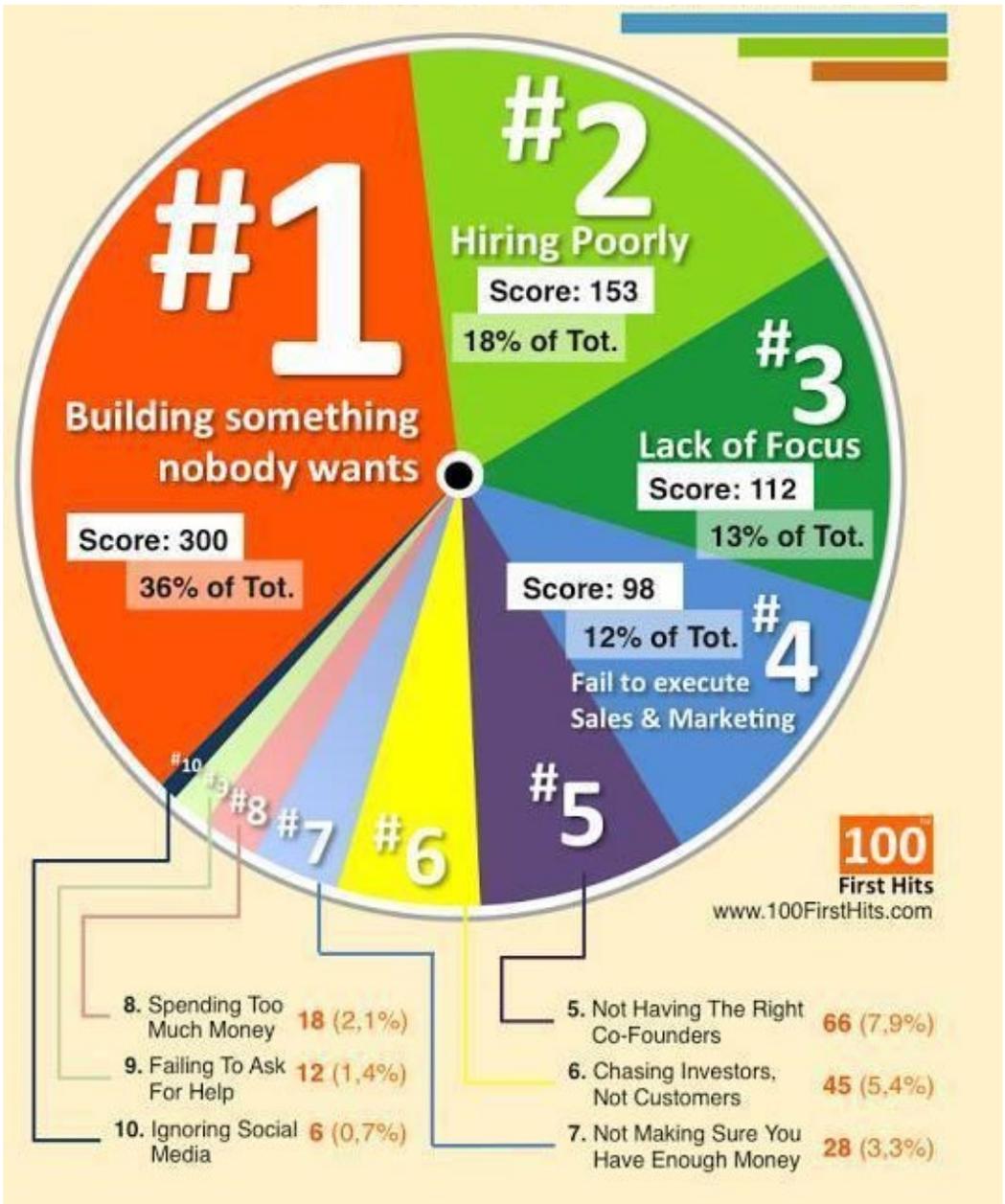
Right Vertex: Solution and Proof. Enter cues and prompts that remind you to relate the solution you're advocating. Add triggers to substantiate the solution's viability.



POLL: WHAT IS MOST COMMON CAUSE OF FAILURE FOR STARTUPS?

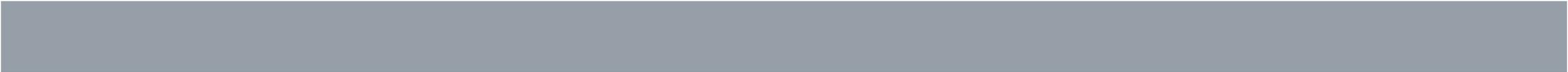
1. Spending Money Too Fast
2. Building a Product Nobody Cares About
3. Not Having the Right Team

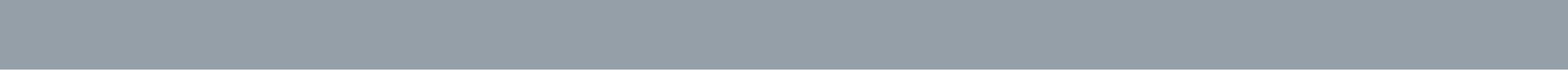




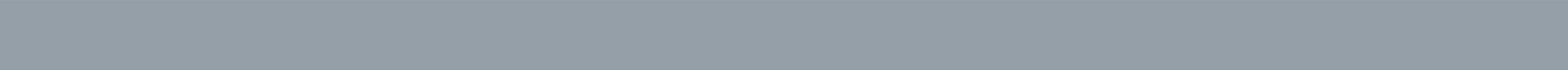


DO COMPANIES BUILD
THINGS THAT NOBODY
WANTS?





DO COMPANIES BUILD
THINGS THAT NOBODY
WANTS?



The Segway



The Segway



Steve Jobs said that the invention would be “as significant as the personal computer.” Jeff Bezos said it was “revolutionary.”



Segway raised over **\$100MM USD in 2001.**

Used funds to focus on execution.

Thought everyone would want a Segway

Projections: **6,000 Segways per week.**



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Used funds to focus on execution.

Thought everyone would want a Segway

Projections: **6,000 Segways per week.**

After **2 years they sold 6,000 TOTAL Segways.**



Tyson's *Law*

Tyson's *Law*



“Killer” Application: City Tours



Why Customer Discovery?

The company had expected that any softness in consumer sales would be made up for by corporate and institutional partnerships, with organizations like Disney and the U.S. Postal Service. But that never panned out. Even the police department in Segway's hometown, Manchester, ordered only four, and didn't use them much. They were fine for parking enforcement, the department told a reporter, but mountain bikes were cheaper and lighter, and they never ran out of juice.

Why Customer Discovery?

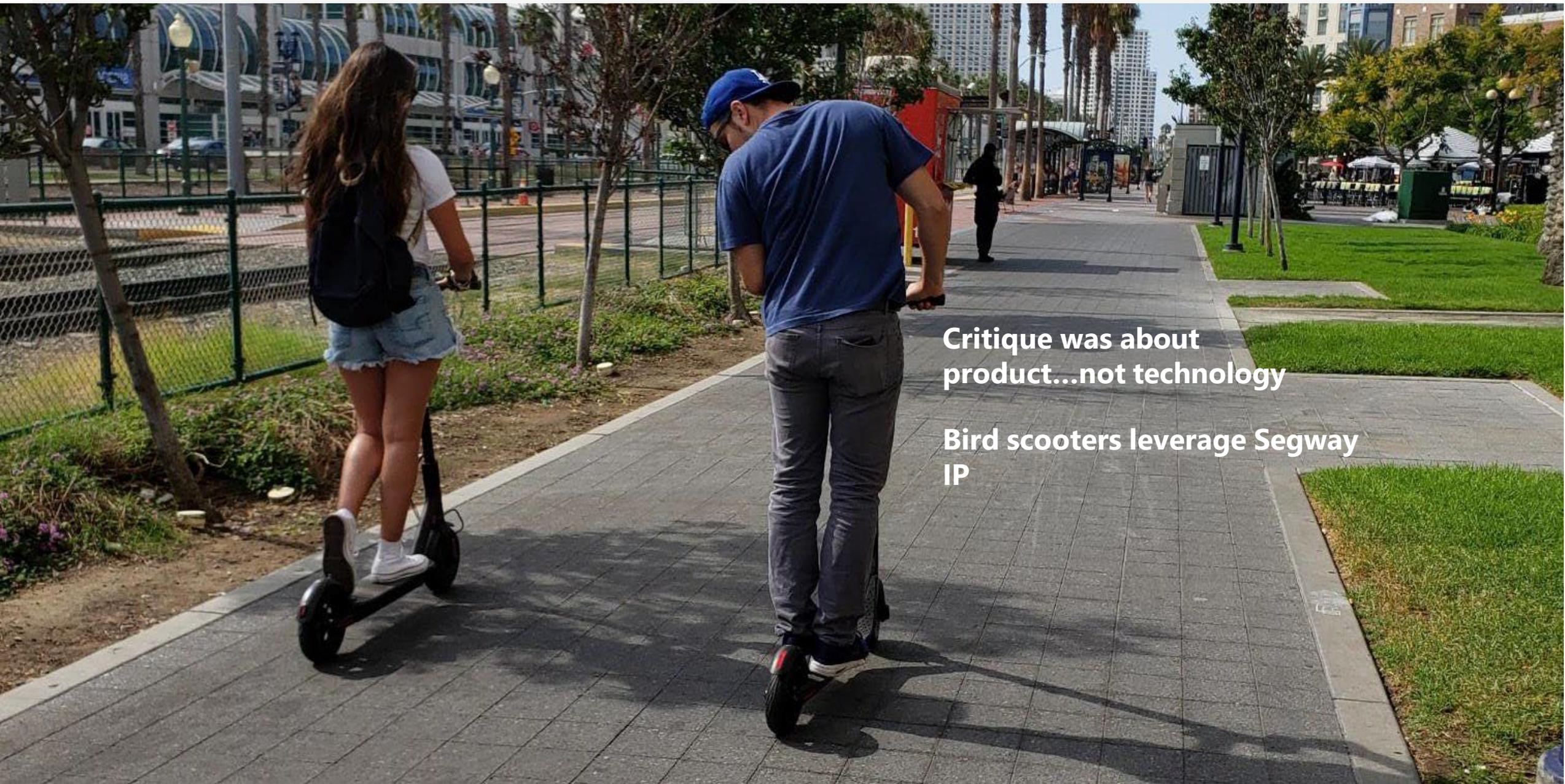
When I returned the Segway, I told the guy at the rental place how I'd learned about all the incredible inspiration and innovation and work and skill that had gone into the Segway, all to make something that cost 10 times as much as a scooter and required a lesson from an expert to ride. He said something I cannot stop thinking about. "Yeah," he said, "a bunch of really smart people got together, but you needed one dumb person in the room to keep things on the level."

Why Customer Discovery?

When I returned the Segway, I told the guy at the rental place how I'd learned about all the incredible inspiration and innovation and work and skill that had gone into the Segway, all to make something that cost 10 times as much as a scooter and required a lesson from an expert to ride. He said something I cannot stop thinking about. "Yeah," he said, "a bunch of really smart people got together, but you needed **one dumb person in the room** to keep things on the level."



Innovation Coach



**Critique was about
product...not technology**

**Bird scooters leverage Segway
IP**

**SEGWAY WAS A GOOD *INVENTION*,
MORE THAN A GREAT *INNOVATION*.**

- **They did not understand the needs of the customer.**

Don't be a "Segway"

TOP 10 STARTUP MISTAKES





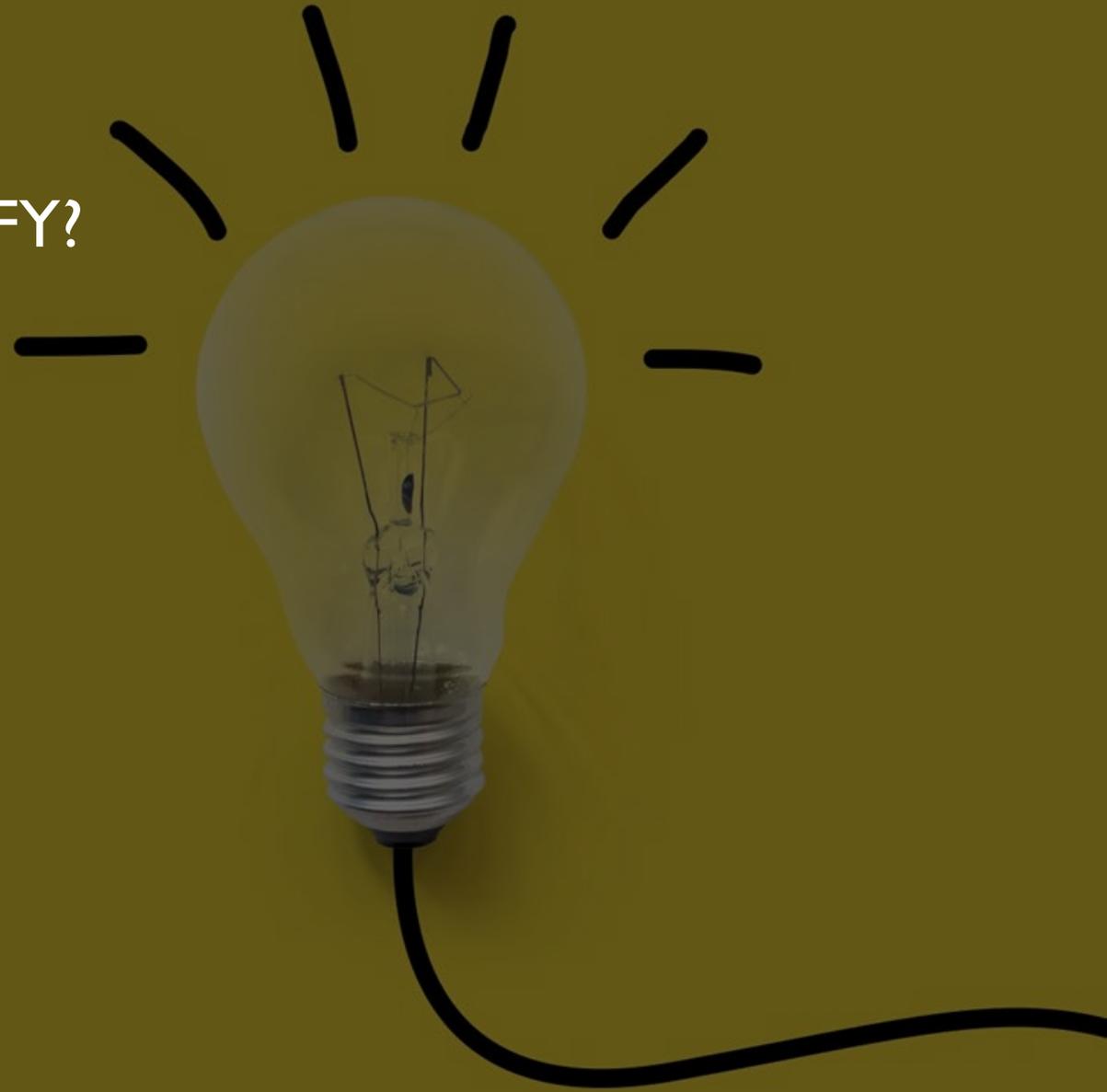
INVENTORS: TRY TO UNDERSTAND THE
TECHNOLOGY

INNOVATORS: TRY TO UNDERSTAND THE PEOPLE



POLL: HOW WOULD YOU IDENTIFY?

1. Inventor
2. Innovator
3. Other



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2025 COMMUNITY COLLEGE INNOVATION CHALLENGE



Advancing Student Innovation & Impact

**2025 COMMUNITY COLLEGE
INNOVATION CHALLENGE**



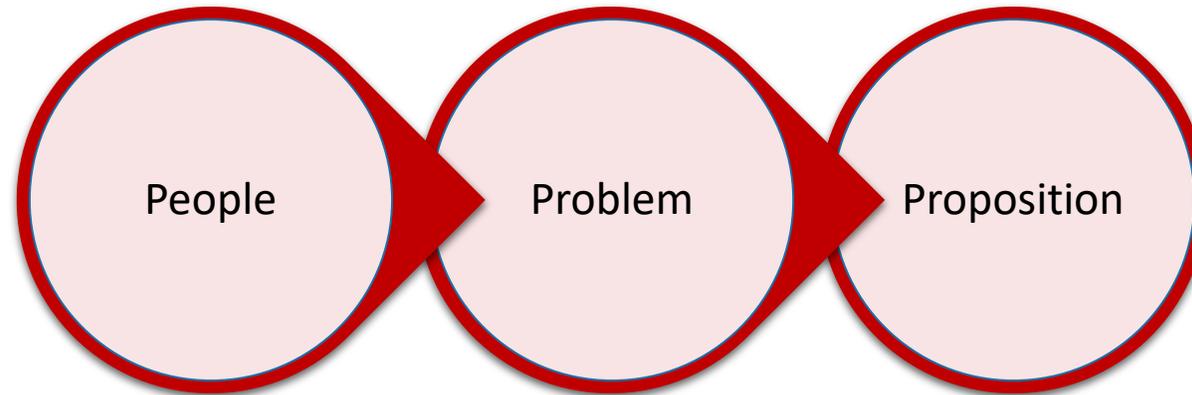
We are all innovators

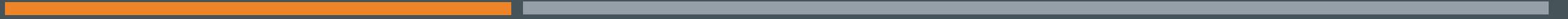
BIG IDEAS FOR INNOVATION

- Startups are not small companies
- Get out of the Building – Customer Discovery
- Minimum Viable Product (MVP)

Customer Discovery

Process Steps

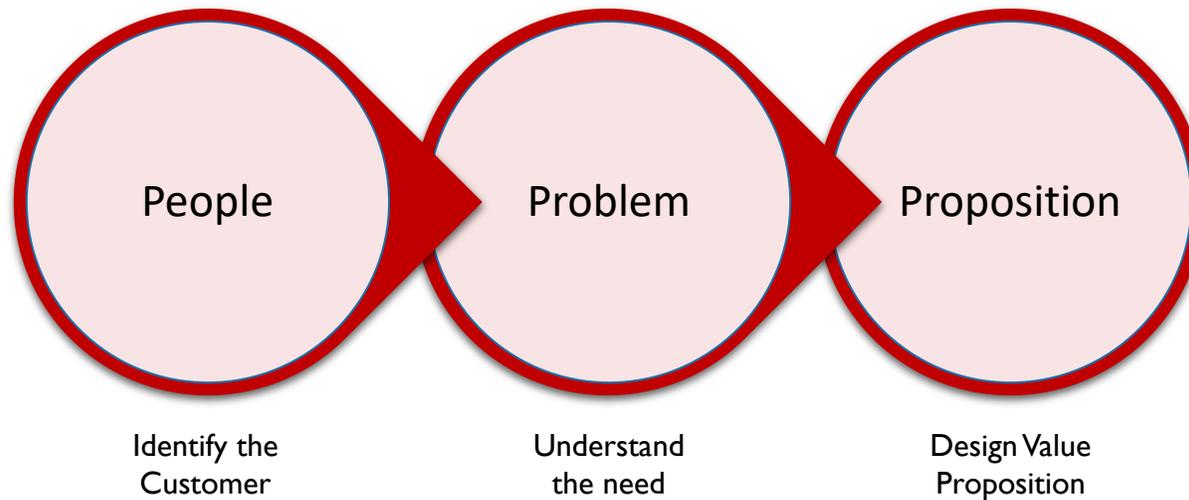




EVIDENCE-BASED INNOVATION

Customer Discovery

Process Steps



DRIVEN BY MANY ASSUMPTIONS:

- Who we are intending to help [identify customer]
- What this person is trying achieve [the need]
- The problem they are having accomplishing this job [pains/gains]
- How this problem might be addressed [competition/status quo]
- The value that might be accrued [value propositions]



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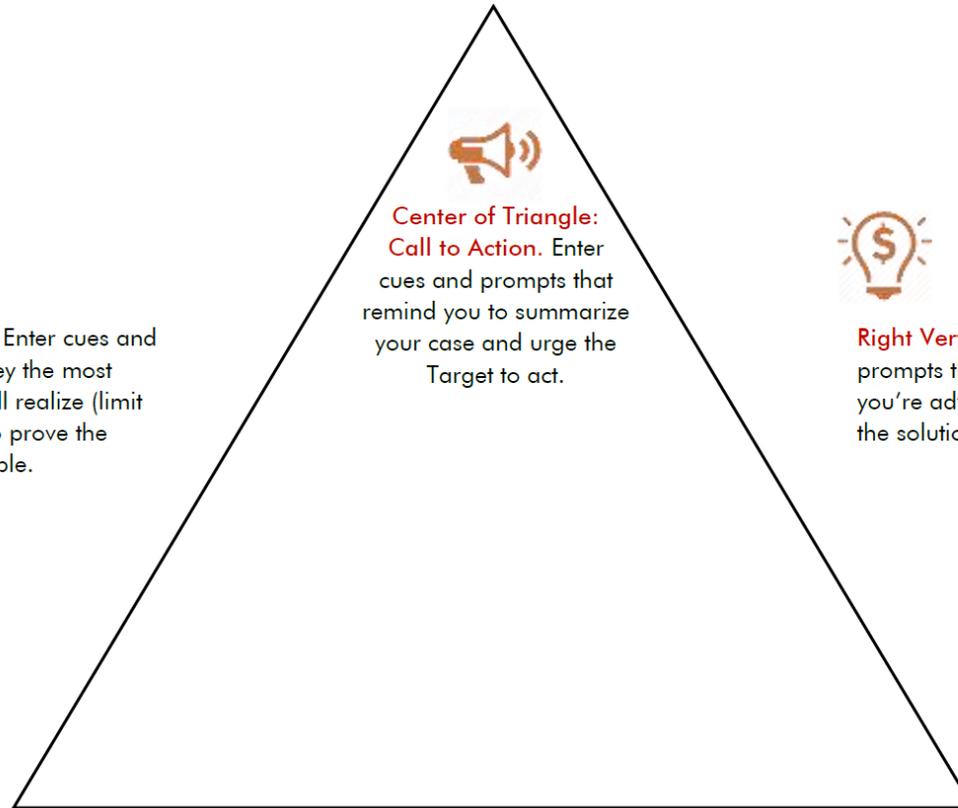
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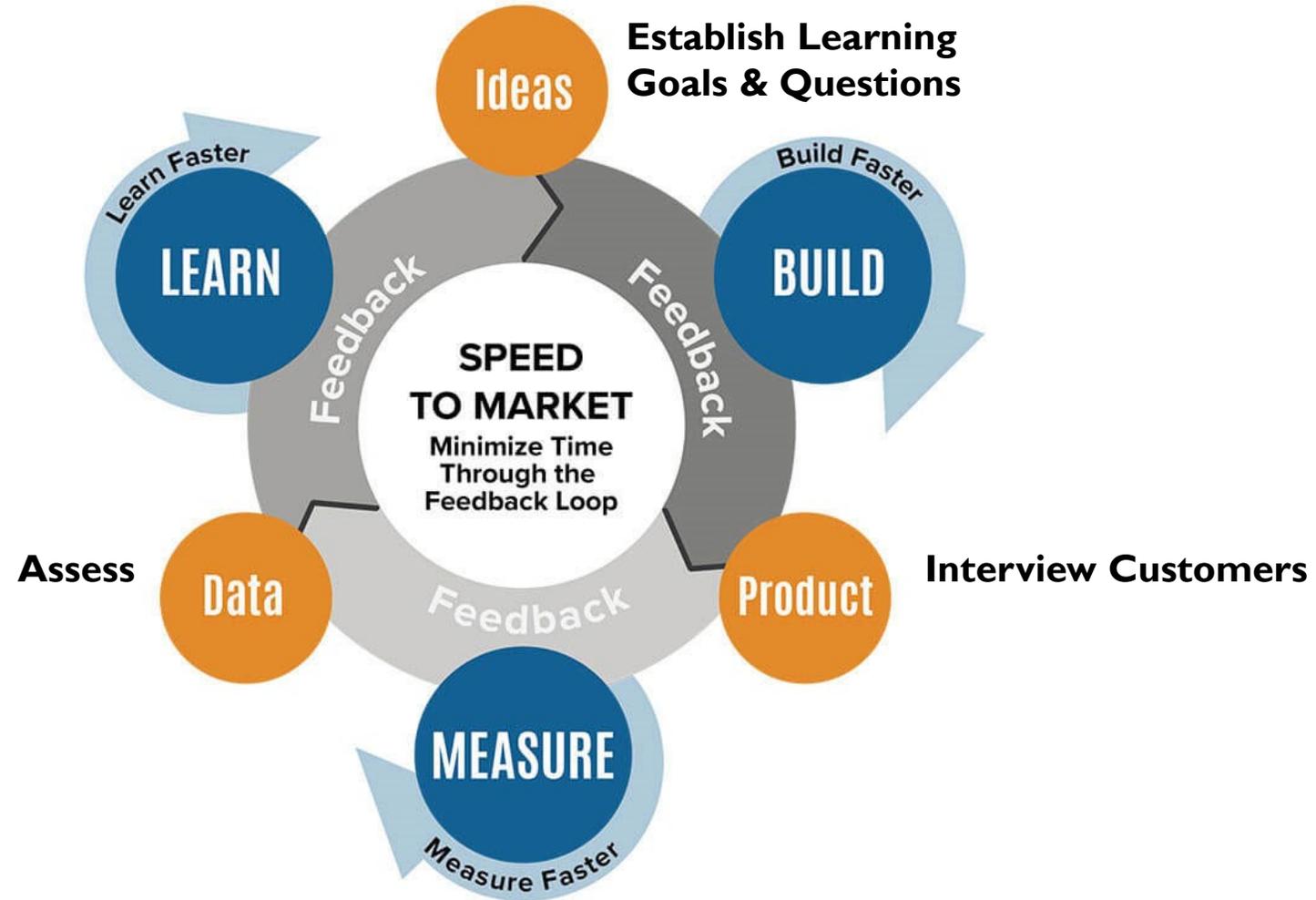


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**HOW A PRODUCT OF YOURS
WILL SOLVE A PROBLEM OF THEIRS**

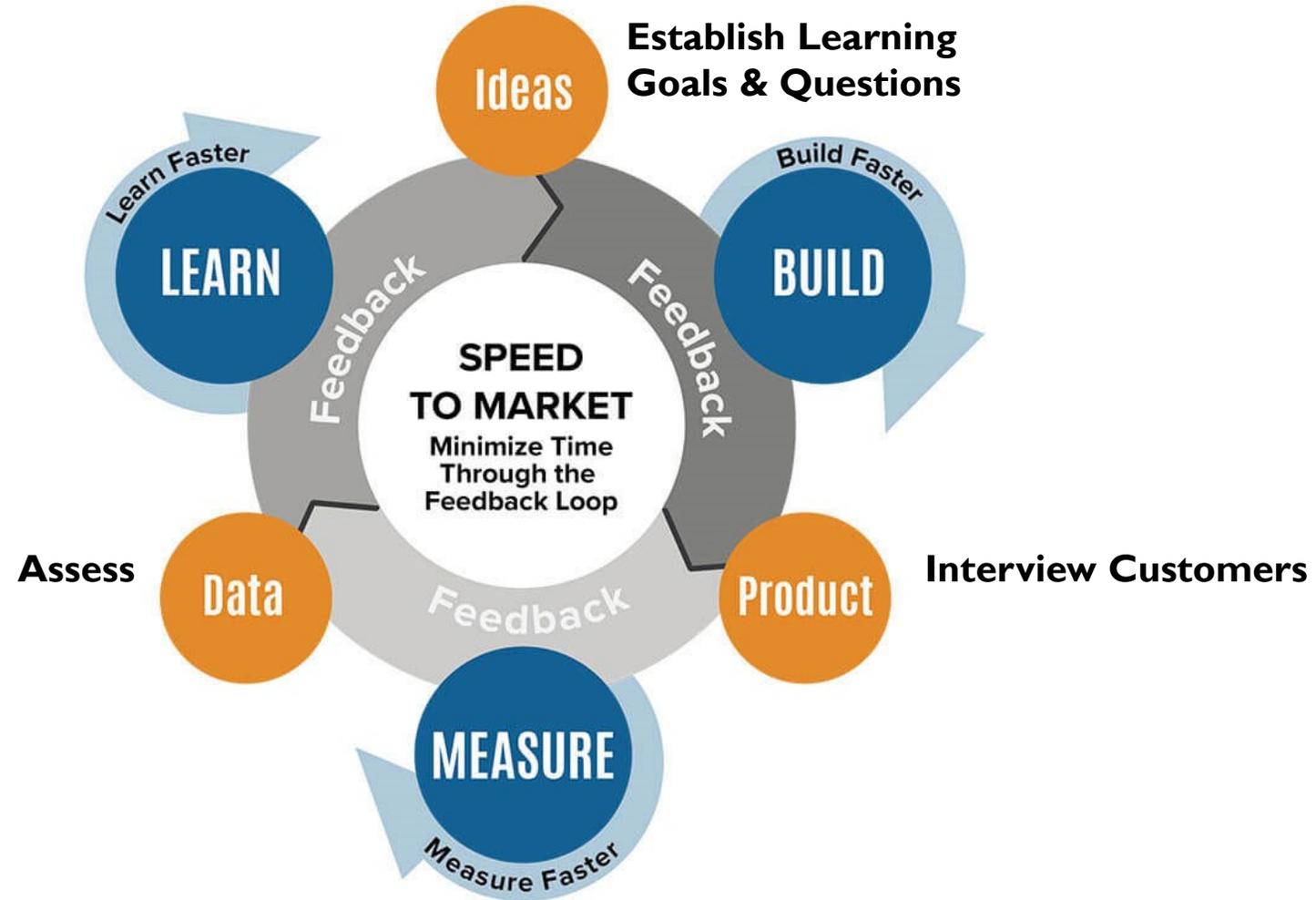
Your Goal:
Turn guesses into facts

BUILD ► MEASURE ► LEARN



Your Goal:
Talk to people and ask
them questions

BUILD ► MEASURE ► LEARN



Stage	TWR (k)	Δv (atm)	Time
1	2.10	279 m/s	12.9 s
2	2.07	322 m/s	15.0 s
3	2.04	380 m/s	17.8 s

Total Δv: 981 m/s

Stage	TWR (k)	Δv (vac)	Time
4	1.98	3155 m/s	143.6 s
5	---	---	---

Stage	TWR (k)	Δv (vac)	Time
6	1.35	2523 m/s	219.1 s
7	---	---	---

Stage	TWR (k)	Δv (vac)	Time
8	---	---	---

It's NOT Rocket Science

2 x Z-400 Rechargeable Battery

Mass = 20 kg
Capacity = 400 e

2 x OX-STAT Photovoltaic Panel

Mass = 5 kg
Electricity = 0.75 e/s

6 x 60° Liquid Fuel Booster

2-2-2 Asparagus Staging

6 x NCS Adapter incl. Standard NC
Mass = 400 kg

18 x PL-T400 Liquid Fuel Tank

Mass = 250 kg
Liquid Fuel = 180 L
Oxidizer = 220 L

6 x LV-T45 Liquid Fuel Engine

Mass = 1,500 kg
Thrust = 200,000 N
Isp (atm) = 320 s

6 x Hydraulic Detachment Manifold

Mass = 400 kg
Ejection Force = 180 N

Total Δv (atm) = 5,404 m/s

Total Δv (vac) = 6,826 m/s

Total Mass = 131,390 kg

Part Count = 78

Rockomax „Mainsail“ Liquid Engine

Mass = 6,000 kg
Thrust = 1,500,000 N
Isp (atm) = 280 s
Isp (vac) = 330 s

KERBAL X

The Kerbal X is one of the most successful rockets that can be ordered from a catalog. Despite the original design having been meant for a plastic model, it's proved itself quite dependable as a full-sized craft.

The X is capable of achieving orbit around Kerbin, and even features a very optimistic set of landing legs on its upper stage.

GET OUT OF THE BUILDING

(PHYSICALLY OR VIRTUALLY)

POLL: HOW WOULD MANY INTERVIEWS SHOULD YOU COMPLETE BEFORE THE BOOTCAMP?

- 1
- 3
- 5





YOUR HW

- Complete 5 interviews prior to the Bootcamp
- Log your interviews

GOOTB: CUSTOMER INTERVIEW STEPS

- Pre-plan the interview
- Conduct the interview
- Process the interview



IDENTIFY THE CUSTOMER
& LEARNING GOALS

PRE-PLANNING THE INTERVIEW

PRE-PLANNING: IDENTIFYING CONTACTS

WHO IS YOUR KEY CUSTOMER?



CUSTOMER TYPES

- **End User:** Day to day users of the product/service
- **Decision Maker:** Makes the final decision to purchase
- **Economic Buyer:** Issues the PO or signs the check
- **Influencer:** Can sway the decision
- **Recommender:** Tasked to recommend solutions
- **Saboteur:** Loses out if the solution is adopted

OTHER TYPES

- **Subject Matter Experts:** Persons with knowledge of the vertical who can be used for referrals and/or hypothesis development but NOT validation
- **Beneficiaries:** Person who benefits from your innovation but does not have influence on the adoption process
- **Champion:** Person with high influence within an organization



HOW DO WE FIND THEM?

Search bar containing "Instructional Technologist" (highlighted with a green oval and an arrow pointing to the banner above)

Filters: People, Connections, Locations, Current companies, All Filters

\$500/hr Advisory Roles - Many companies are seeking paid Business Advisors. Are you interested? Ad ...

About 20,000 results

! Grant Muhoozi, you seem like a power searcher.
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 **Matthew Whittlesey** • 2nd
Instructional Technologist
Washington D.C. Metro Area
[Connect](#)
Summary: I am an Instructional Technologist with well over...
 Todd Ledbetter is a shared connection

 **Michelle Metzler** • 2nd
Instructional Technologist at Stratford University
Washington D.C. Metro Area
[Connect](#)
Current: Instructional Technologist at Stratford University
 Tien Wong is a shared connection

 **Kristian Dabney** • 2nd
Instructional Technologist at The George Washington University
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Save this search to get notified as new results become available.
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[Connect](#)

Kristian Dabney • 2nd
Instructional Technologist at The George Washington University
Washington D.C. Metro Area
Past: **Instructional Technology Specialist** at Howard University
Joshua K. Brown and Adrienne Lacy are shared connections

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Richard Culatta • 2nd

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Messaging [+](#)

All people filters

Clear | Cancel | **Apply**

- Connections
- 1st
 - 2nd
 - 3rd+

Connections of

- Locations
-
- United States
 - Greater New York City Area
 - Washington D.C. Metro Area
 - Greater Boston Area
 - Canada

- Current companies
-
- Northside ISD
 - Houston ISD
 - New York University
 - University of Minnesota
 - Aetna, a CVS Health Company

Market Segment

- Past companies
-
- US Navy
 - Apple
 - IBM
 - US Army
 - AT&T

- Industries
-
- Higher Education
 - E-learning
 - Education Management
 - Information Technology & Services
 - Primary/Secondary Education

- Profile language
- English
 - Spanish
 - Turkish
 - French
 - German

Alumni Network

- Schools
-
- Bloomsburg University of Pennsylvania
 - University of Phoenix
 - University of North Texas
 - Penn State University
 - New York University



Search



Erika Eason · 3rd

Director of Academic Technology at Maret School

Washington, District Of Columbia · 129 connections · [Contact info](#)

[Message](#) [More...](#)

MARET Maret School
UMGC University of Maryland Global Campus

Highlights



You both studied at Cornell University
You both studied at Cornell University from 1991 to 1993

[Say hello](#)

About

Promoted

- \$500/hr Advisory Roles**
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How much Bain, BCG, and McKinsey consultants make >
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Add new skills with these courses

- Apple Watch Tips and Tricks**
Viewers: 10,788
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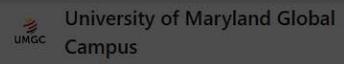
Search

- People
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- Content
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Recent Clear

-  Erika Eason
- edtech
- Instructional Technologist

Er
 Director of Academic Technology at Maret School
 Washington, District Of Columbia · 129 connections · [Contact info](#)



Highlights

 **You both studied at Cornell University**
 You both studied at Cornell University from 1991 to 1993
[Say hello](#)

About

I have been an educator for over twenty years and have always striven to incorporate the best practices of my field into my daily work. After fourteen years of teaching Spanish, I parlayed my extensive classroom experience into a new

Interested? Ad

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Quickly & securely manage student, faculty & staff COVID-19 testing
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Add new skills with these courses

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Messaging  

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Showing 252 results

-  **EdTech Start Ups**
Group • 22,234 members
Together, great minds can achieve significantly more than a single perspective alone. The vision of this group is to network with others, share information, discuss the industry, support one another and evoke ...
-  **EdTech (Education Technology)**
Group • 2,518 members
Join the Group to together Spread Awareness on Education Technology. EdTech (Education Technology) is a Group of EdTech enthusiasts across the globe who can collaboratively reform technology adoption and ...
-  **EdTech Leaders Online**
Group • 3,106 members
We are a capacity-building, online learning program based at Education Development Center for online educator professional development and virtual school programs.
-  **EdTech Forum**
Group • 11,716 members
This group is dedicated to all the Education Consultants and professionals from the Educational field in India who are looking to change the "way we teach" by coming up with innovative educational products for ...
-  **EdTech Specialists - join the conversation with 4500 members**
Group • 4,587 members
To discuss the constantly changing regulatory, technical and commercial aspects of education technology to share and comment on the latest EdTech news as well as career opportunities.
-  **Baltimore EdTech**
Group • 403 members

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Many companies are seeking paid Business Advisors. Are you interested?
-  **Safeguard Campus Health**
Quickly & securely manage student, faculty & staff COVID-19 testing
-  **BUSINESS INSIDER Premium**
Red Bull fires CEO and CMO amid leaked controversial presentation slide



**Once you have found them
you need a “cold-call”
script**

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in Search

\$500/hr Advise

Build a quality network by connecting only with people you know.

Message (optional)

Ex: We know each other from...

300 / 300

PREMIUM

Don't know Simone B.? Send an InMail with Premium to introduce yourself. More people reply to an InMail than a connection request.

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Cancel Done

Simone B. Soso, Ph.D. · 21

STEM Diversity Advocate, Program Manager, STEM Policy Analyst, Scientist, and Collaborator

Temple Hills, Maryland · 500+ connections · [Contact info](#)

#OpenToWork
Project Manager, Director, Program Manager, Science Director and Diversity Manager roles
[See all details](#)

Highlights

39 mutual connections
You and Simone B. both know Anthony E. Ray, charles b cook, and 37 others

Leading and V Teams
Viewers: 73,758

Mathematica 1 Training
Viewers: 7,180

Cert Prep: Proj Management I (PMP)®
Viewers: 376,542

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PRE-PLANNING: COLD-CALL SCRIPT

- **Who** you are?
- **What** are you looking for?
- **Why** are you contacting the person?
- **How** much time do you need?

PRE-PLANNING: COLD-CALL SCRIPT

- **Who** you are?
- **What** are you looking for?
- **Why** are you contacting the person?
- **How** much time do you need?

SAMPLE: COLD CALL SCRIPT

- Hello. My name is [Your Name], I am a student working on an NSF project exploring [the problem area you are interested in]. I am hoping to gain insight into decisions about [specific process your investigating]. As an expert in this area, I hope that you could speak with me for 10 minutes.

KEY POINTERS – DEVELOP YOUR INTRODUCTORY SCRIPT

- Who/ What/ Why/ How
- Be clear that you are not selling
- Flatter your target
- Ask for minimal amount of time



**Once they agree to speak
to you, you need interview
goals**

**KEY EARLY STAGE
LEARNING GOALS**

DO YOUR CUSTOMERS HAVE
THE PROBLEM YOU THINK THEY
HAVE?

WHERE DOES THAT PROBLEM
FIT IN THEIR PRIORITIES?

ARE YOU TALKING TO THE
RIGHT PEOPLE?

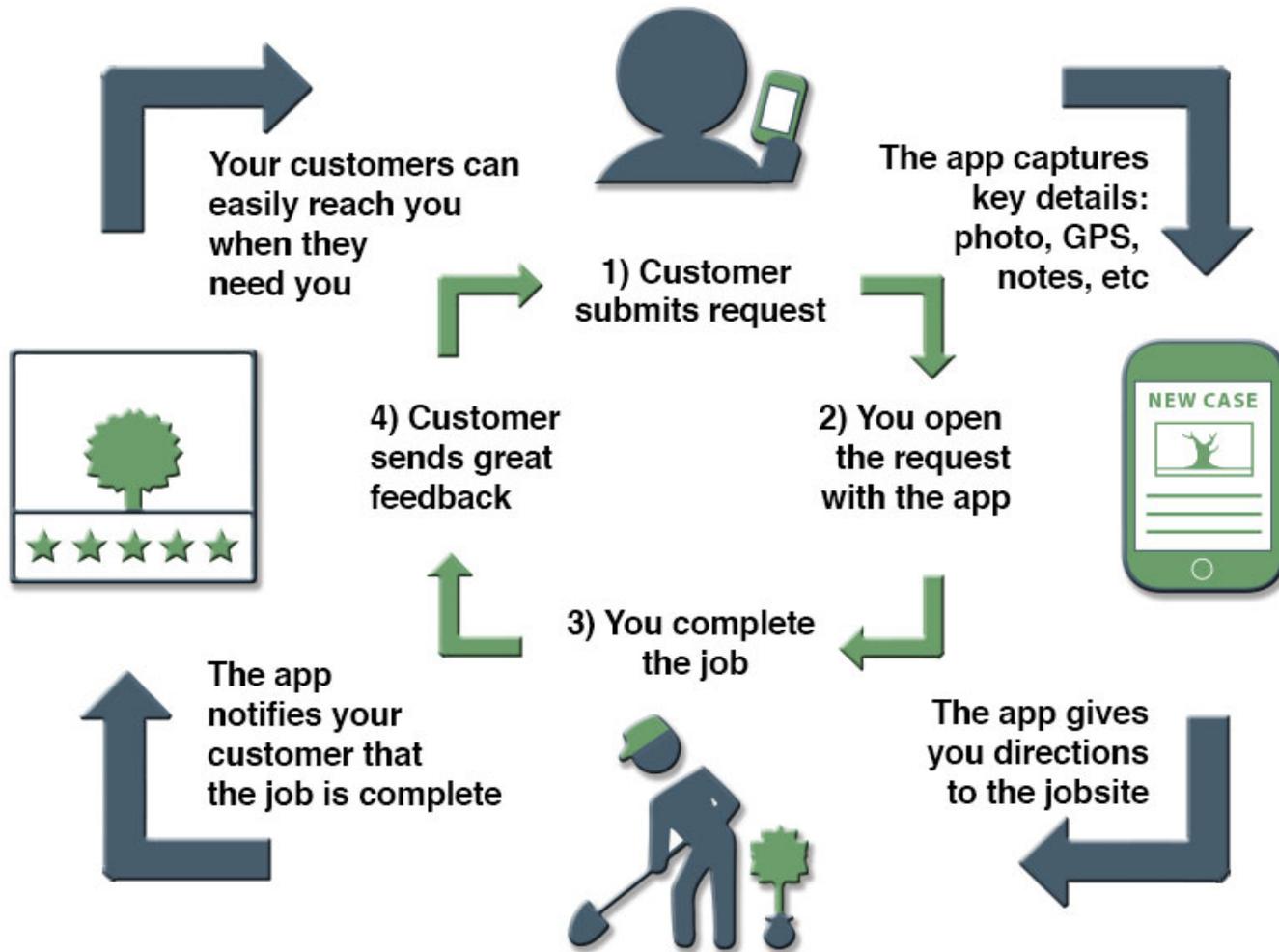
**Then create a conversation
to help you
validate/invalidate the
hypotheses/goals**

GET STORIES

- When was the last time you....
- Walk me through the process of...
- Can you explain how...
- When would....

**OPEN ENDED QUESTIONS PROMPT
DISCUSSION**





UNDERSTAND THE CUSTOMER JOB

HOW DO THEY SOLVE THE PROBLEM YOU ARE SOLVING TODAY?

WHAT IS THE PAIN WITH THAT SOLUTION?

ARE THEY ACTIVELY LOOKING FOR NEW SOLUTIONS?

ASK WHY - REPEATEDLY

-
- WHY?
 - WHY?
 - WHY?
 - WHY?
 - WHY?



**GOOD
QUESTION**



BAD QUESTION





WHAT IS THE BIGGEST ISSUE YOU
FACE WHEN DEALING WITH
PROCESS/ACTIVITY 'Y'?



WHAT IS THE BIGGEST ISSUE YOU
FACE WHEN DEALING WITH
PROCESS/ACTIVITY 'Y'?



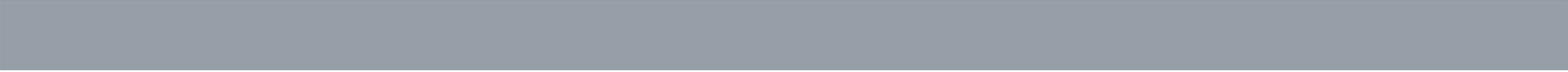


Would you buy a product that did 'X'?



Would you buy a product that did 'X'?





What are the implications of not solving
the problem?



What are the implications of not solving
the problem?





How are you dealing with this today?



How are you dealing with this today?





What solutions have you tried?



What solutions have you tried?





What would your dream product do?

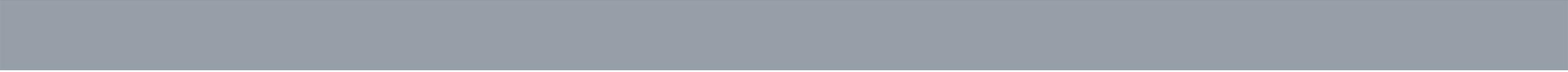


What would your dream product do?
(customer jobs)



What would your dream product do?
(customer feature request)





Would you pay “X” for a solution that
did “Y”?

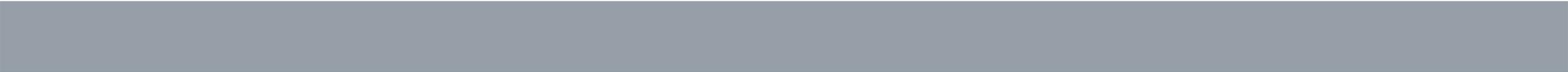


Would you pay “X” for a solution that
did “Y”?





Where does the money come from to
deal with the issue?

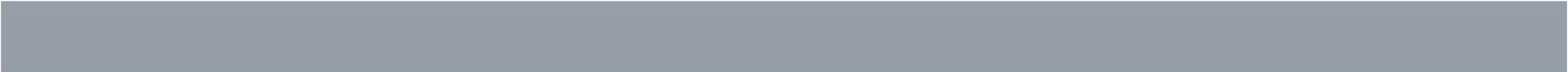


Where does the money come from to deal with the issue?





What do you think about this solution?





What do you think about this solution?



What do you think about this solution?





What do you think about this solution?



CONDUCTING THE INTERVIEW

- Ask them to tell a **story** about their **jobs/responsibilities**
- Ask **open-ended** questions
- Drill Down on their **pain points** – ask **why**, repeatedly
- Listen more | Talk Less
- **DO NOT** Talk about your product
- Take notes

CONDUCTING THE INTERVIEW

(CLOSING THE INTERVIEW)

What else should I have asked about?

Who else should I talk to?

Can I follow up with you later?

Thank them again

LOG YOUR NOTES/INSIGHTS



PROCESSING DATA

PROCESS THE INTERVIEW





REMEMBER: YOU ARE SIFTING FOR GOLD

THINK ABOUT HOW RESPONSES ARE IMPACTING YOUR LEARNING GOALS

IT IS NOT ABOUT THE QUESTIONS; IT IS ABOUT THE ANSWERS

ANALYZE YOUR DATA

- What did you hear that you never heard before?
- What learning goals/assumptions did they disprove?
- What new people did they tell you about that you were unaware of?

- What will you revise change?
 - New Learning Goals/Assumptions?

CUSTOMER DISCOVERY DO'S

DO

Know your objective before you go

Listen more, Talk less

Ask Open-ended Questions

Ask for referrals

Log your results honestly

Listen more, Talk less

CUSTOMER DISCOVERY DON'TS

DON'T

Sell, pitch, sell, pitch

-you got it?-

Talk About Your **Technology**

Ask them what they **Want**

*take **feature** requests*

Stage	TWR (k)	Δv (atm)	Time
1	2.10	279 m/s	12.9 s
2	2.07	322 m/s	15.0 s
3	2.04	380 m/s	17.8 s

Total Δv: 981 m/s

Stage	TWR (k)	Δv (vac)	Time
4	1.98	3155 m/s	143.6 s
5	---	---	---

Stage	TWR (k)	Δv (vac)	Time
6	1.35	2523 m/s	219.1 s
7	---	---	---

Stage	TWR (k)	Δv (vac)	Time
8	---	---	---

It's NOT

Rocket Science

2 x Z-400 Rechargeable Battery

Mass = 20 kg
Capacity = 400 e

2 x OX-STAT Photovoltaic Panel

Mass = 5 kg
Electricity = 0.75 e/s

Rockomax „Mainsail“ Liquid Engine

3 x 60° AV-R8 Winglet

Mass = 20 kg

6 x 60° Liquid Fuel Booster

2-2-2 Asparagus Staging

6 x NCS Adapter incl. Standard NC
Mass = 400 kg

18 x PL-T400 Liquid Fuel Tank
Mass = 250 kg
Liquid Fuel = 180 L
Oxidizer = 220 L

6 x LV-T45 Liquid Fuel Engine
Mass = 1,500 kg
Thrust = 200,000 N
Isp (atm) = 320 s

6 x Hydraulic Detachment Manifold
Mass = 400 kg
Ejection Force = 180 N

Liquid Fuel = 1440 L

Oxidizer = 1760 L

Rockomax X200 „Mainsail“ Liquid Engine

Mass = 2,000 kg
Liquid Fuel = 1440 L
Oxidizer = 1760 L

6 x 60° AV-R8 Winglet

Mass = 20 kg
Isp (atm) = 320 s

Rockomax „Mainsail“ Liquid Engine

Mass = 6,000 kg
Thrust = 1,500,000 N
Isp (atm) = 280 s
Isp (vac) = 330 s

Rockomax „Poodle“ Liquid Engine

Mass = 1,000 kg
Thrust = 220,000 N
Isp (vac) = 390 s

Mk16-XL Parachute

Mass = 300 kg
Drag
- Stowed = 0.22
- Semi-Deployed = 1
- Deployed = 500

Mk1-2 Command Pod

Mass = 4,000 kg
Required Crew = 3

KERBAL X

The Kerbal X is one of the most successful rockets that can be ordered from a catalog. Despite the original design having been meant for a plastic model, it's proved itself quite dependable as a full-sized craft.

The X is capable of achieving orbit around Kerbin, and even features a very optimistic set of landing legs on its upper stage.

Total Δv (atm) = 5,404 m/s
Total Δv (vac) = 6,826 m/s
Total Mass = 131,390 kg
Part Count = 78

Startup's #1 job is?



Startup's #1 job is?

CUSTOMER
DISCOVERY



Why Must Startups do Customer Discovery?



Why Must Startups do Customer Discovery?

TO BUILD SOMETHING PEOPLE
CARE ABOUT



QUESTIONS?
