



Lab
2Market
Validate

Introduction to the Lean Startup Method

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The background of the slide features several thin, light brown lines that create a sense of movement and structure. These lines are mostly diagonal and curved, starting from the left edge and extending towards the right. Some lines are straight, while others are curved, creating a dynamic and modern aesthetic.

AGENDA

L2M

L2M VALIDATE – SAILING DIRECTIONS

DOING BUSINESS IN THE BLUE ECONOMY

LEAN STARTUP METHOD

FALLING IN LOVE WITH THE PROBLEM

ASSIGNMENT

Why are you here?

- “Take my innovation from pilot phase to viable product”
- “Build a network with individuals who share innovative ideas”
- “Showcase our innovation”
- “Validate our solution with actual customers and get feedback to help improve it”
- “Refine our business model; validate our market approach; enhance our commercialization strategy”

About Lab2Market

- “Lab2Market is a national program in Canada to equip graduate students and their faculty supervisors with the entrepreneurial skills needed to assess the [commercial] viability of their university-based research”

More info: <https://lab2market.ca/>
https://www.nsf.gov/news/special_reports/i-corps/

Lab2Market program objectives

Equip you with the knowledge and tools needed to assess the desirability of your startup

Classes are labs – lectures and reference materials are tools, not answers.

Simulate the pressures, uncertainty and challenges of a real startup

Get ready for long days, iterations, pivots and failure (learning).

Our expectations

- This is a full-contact, immersive, experiential learning program
 - Full time for 10 weeks (Orientation + Core program)
 - You will work at a startup tempo, with urgency
 - You will spend the majority of your time outside of your research community (comfort zone)
 - Participate and learn as a team (EL + TL + Mentor)

Entrepreneurial Lead

Your role:

- Scheduler – organize and manage team meetings; let others know when you need them, and why
- Marketer – spread the word about what you are trying to do, and why
- Customer service representative – lead the Customer Discovery process
- Grunt – do whatever needs to be done, when it needs to be done.

Technical Lead (TL)

- Deep understanding of the science/technology behind your product/service, and latest developments in the field
- Typically (but not always) more theoretical than practical
- When the need to iterate or pivot arises, the TL can help answer the question ‘Is that scientifically/technically feasible?’
- Deep understanding of research enterprise; can secure additional funding/students to undertake any additional research/product development (as required)
- Maintains a wide network of other experts in the field

Mentor

- Mentors are people with real world experience
- The mentor's role is to:
 - Help you 'get out of the laboratory'
 - Share contacts
 - Offer 'real world' entrepreneurial advice
 - Give critical feedback
- You arrange your schedule around mentor availability, not the other way around.

Managing team dynamics

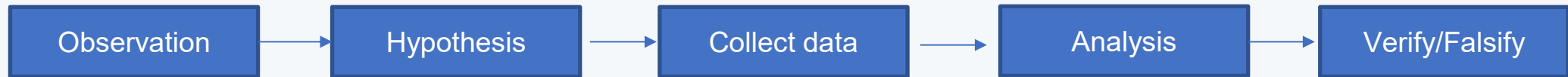
COMMUNICATE; COMMUNICATE; COMMUNICATE

- Schedule weekly team meetings, with phone/text/email updates to ensure you stay aligned and accountable to your goal and plan (remember planning?).
- Ask your team what they are thinking, feeling, or experiencing. Likewise, be clear about what you are thinking or feeling.
- Avoid thinking in terms of 'right-wrong'; 'all-or-nothing'. Find compromise when options/differences arise and think about what's best for your startup.

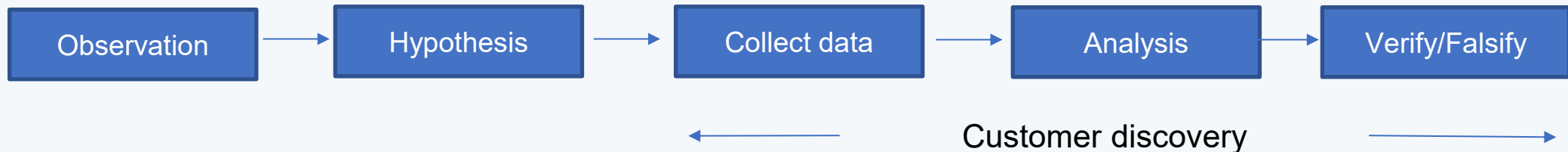
QUESTIONS?

Research vs Entrepreneurship

- Research is the process of finding/developing that next big scientific, engineering or technology breakthrough
- Its about turning money (grants, funding) into knowledge.



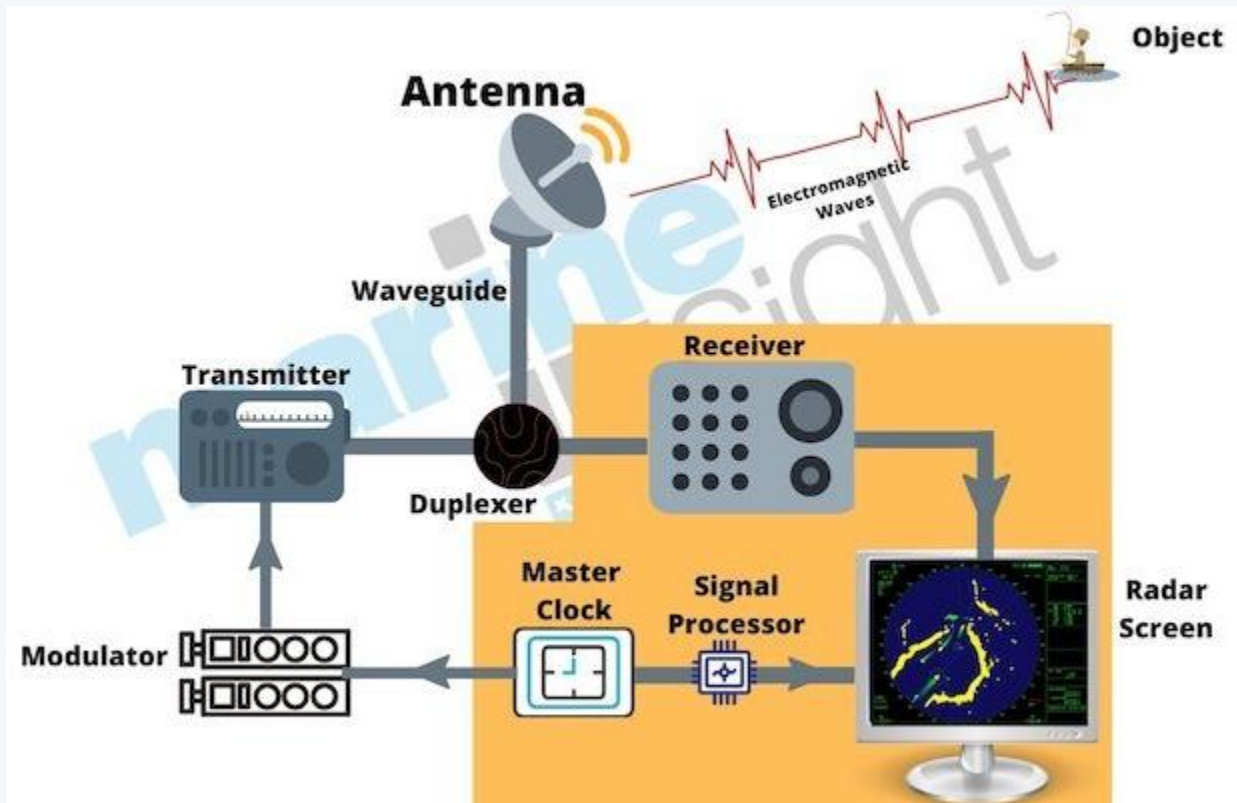
- Innovation is the application of new processes or techniques to create value.
- Its about turning knowledge (research) into money (revenue, profit)



What about my research?

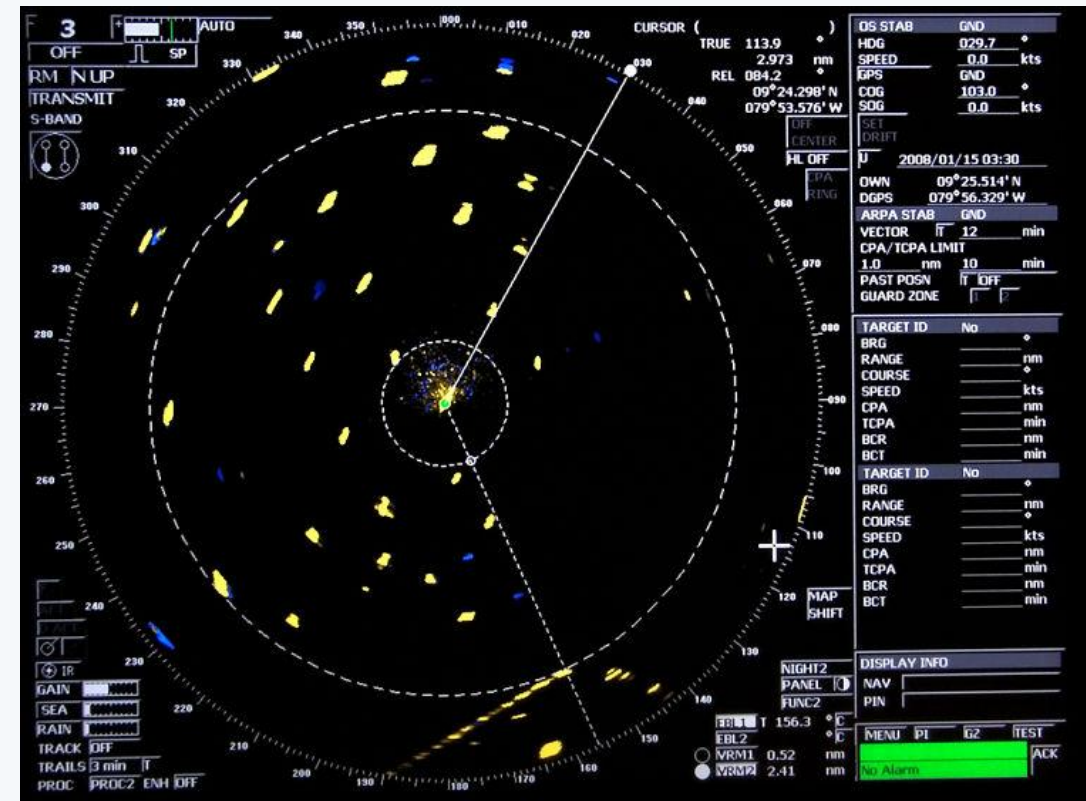
- Your research is one of the critical pieces needed to build a successful startup/company.
- It is part of your 'value proposition'
- But, customers really don't care about your research.
- They are trying to accomplish a task or solve a problem.

What about my research?



Marine Radar

L2M



2 Doing business in the blue economy

Oceans are important

- Economically
- Environmentally
- Emotionally

Culture | The aquatic underworld

Is the deep ocean more magnificent than outer space?

Some writers who have ventured into the unknown claim so



Source: The Economist,
October 2024

Ocean challenges

- Unique and challenging environment means unique and challenging problems and needs (i.e. opportunities)
- For example:



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What does this all mean for your ocean startup?

- Mariners are, by necessity, conservative
- NOT luddites; but very cautious/careful
- The key things that keep ocean industry up at night are:
 - Safety
 - Efficiency
 - Profit
 - Environmental sustainability (social licence)

Navigating 'The Commons'

- “Commons” is a general term for shared resources in which each stakeholder has an equal interest ([Digital Library Of The Commons \(indiana.edu\)](#))
- All ocean enterprise is conducted under some form of ‘social licence’
- Regulatory framework is a key consideration
- As such, the pertinent regulator(s) are important stakeholders (*more on this next week*).
- Regulations represent barriers to your customers, and as such, opportunities for your startup

[The Tragedy of the Commons \(mtu.edu\)](#)

Opportunities in regulation



RUTTER

MARKET SEGMENTS/APPLICATIONS



Cruise & Yacht



Harbour Management



Research



Oil & Gas



Seafood Harvesting



Security & SAR



Seismic



Shipping



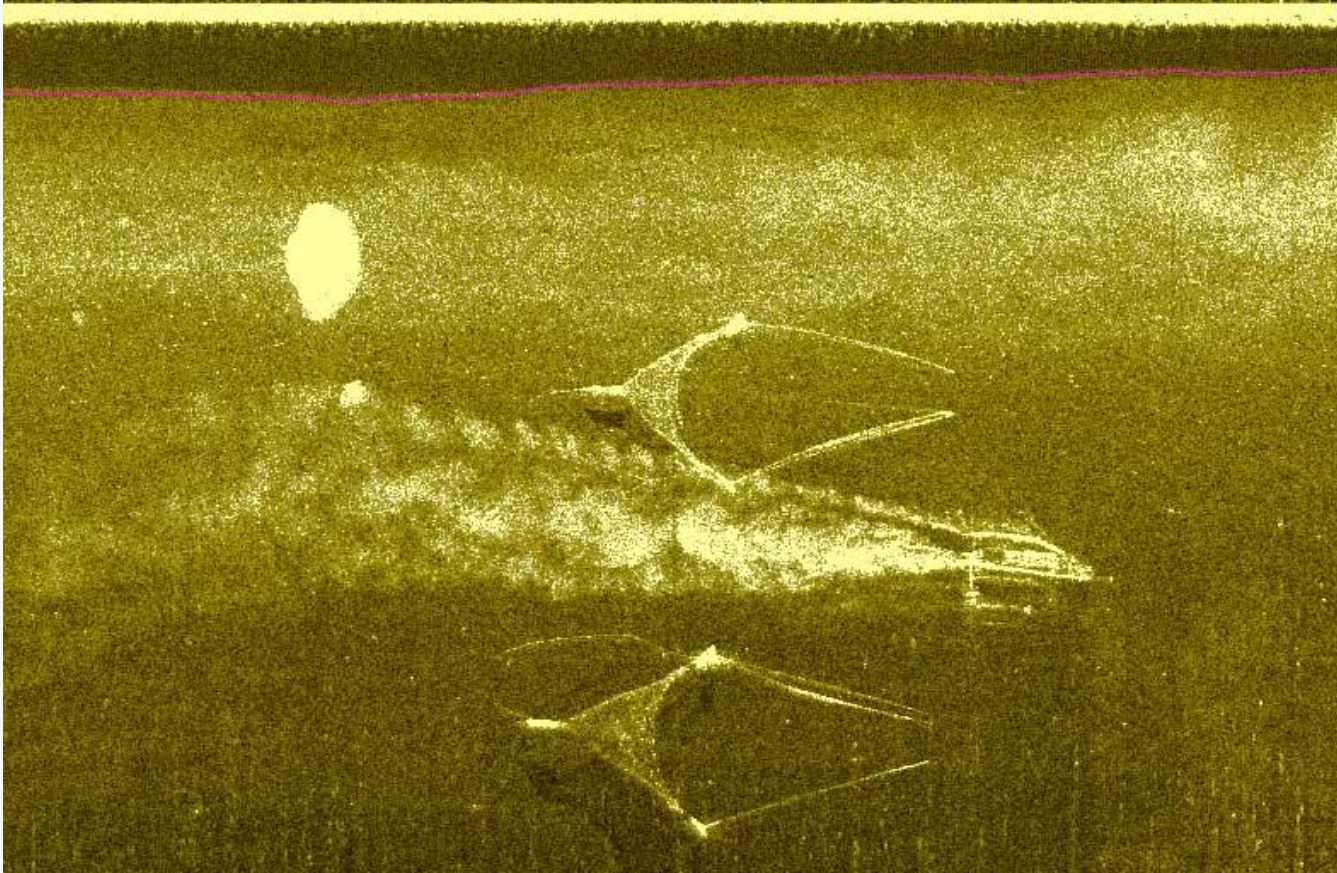
Wind Energy



Work Boats



What is 'ocean' technology?



Sonar



QUESTIONS?

2 Intro to Lean Startup



L2M _____

Startup vs Company

- **Startup**: a **temporary** organization with a mandate to **search** for a **repeatable** and **scalable** business **model** [Function: **Search** to validate assumptions]
- **Company**: a business organization which **sells** a product or service in exchange for **revenue** and **profit** [Function: **Execute** a business plan]

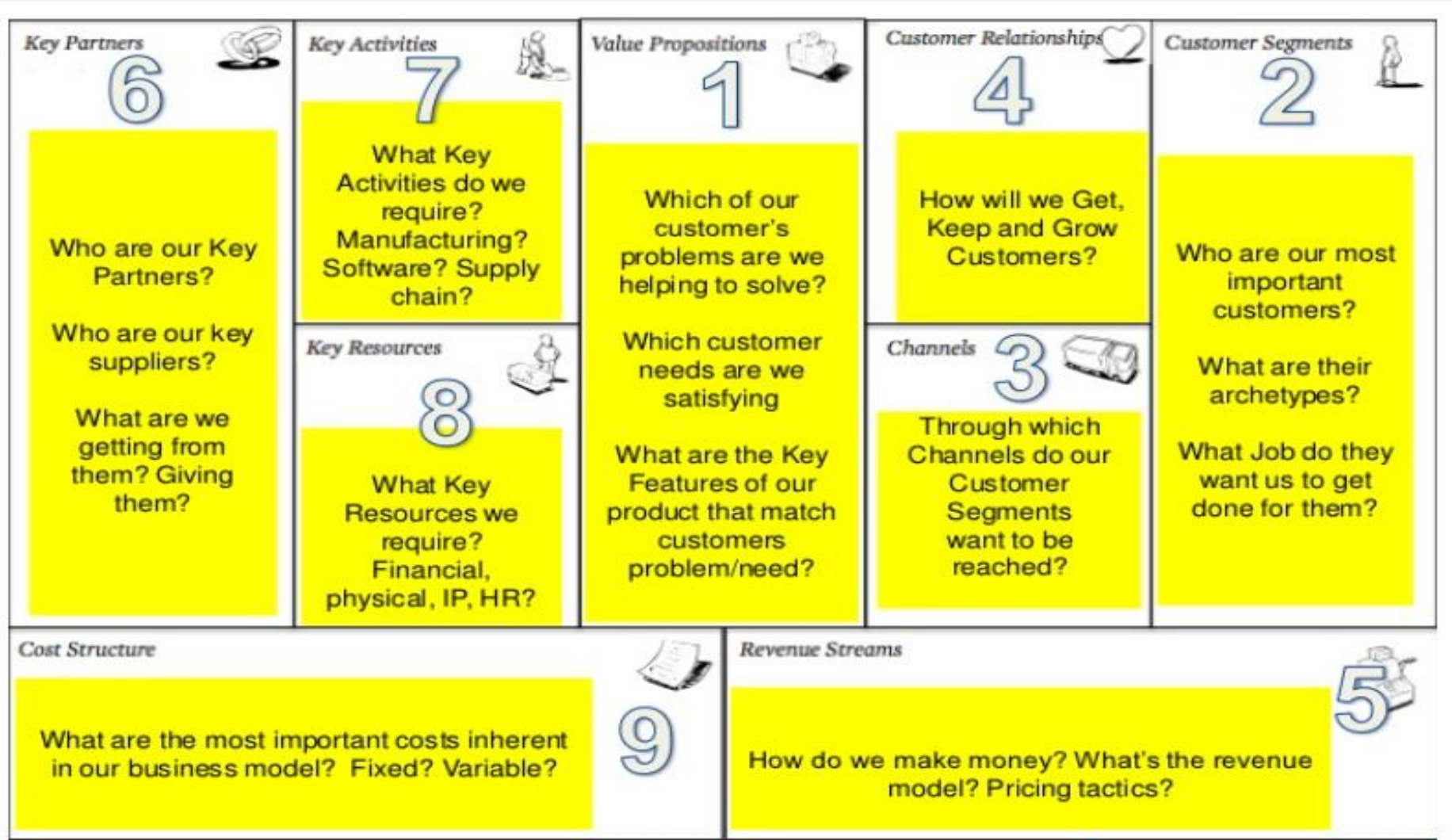
Lean Startup

- Risk reduction methodology
- Three components:
 - 1. **Business Model** (core business assumptions and hypotheses)
 - 2. **Customer Discovery** (a way to test core assumptions and hypotheses)
 - 3. **Agile Engineering** (iterative product development)

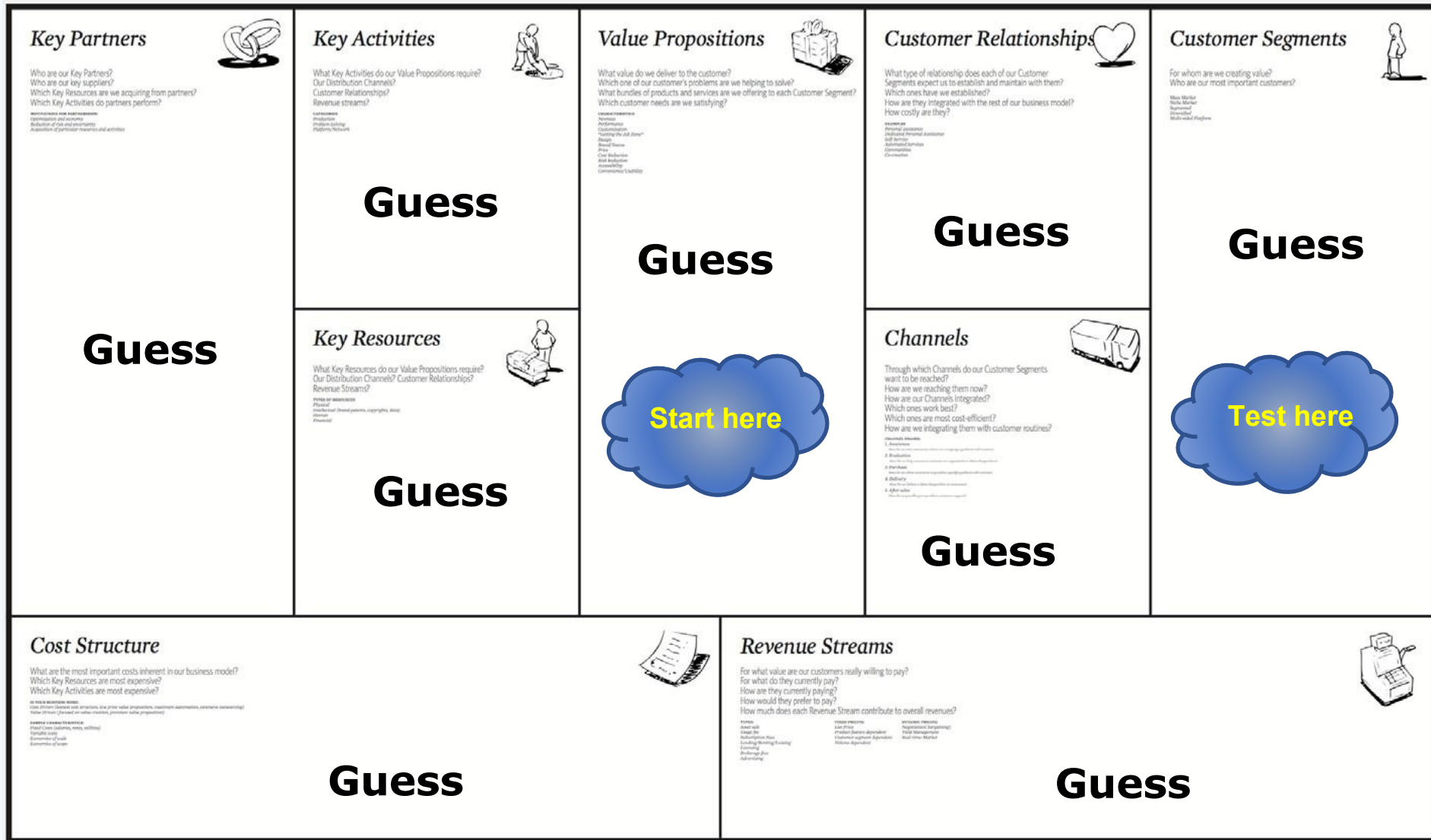
Business model

Describes how your startup creates, delivers and captures value for both you and your customers.

Business model canvas



Business model canvas



Start here

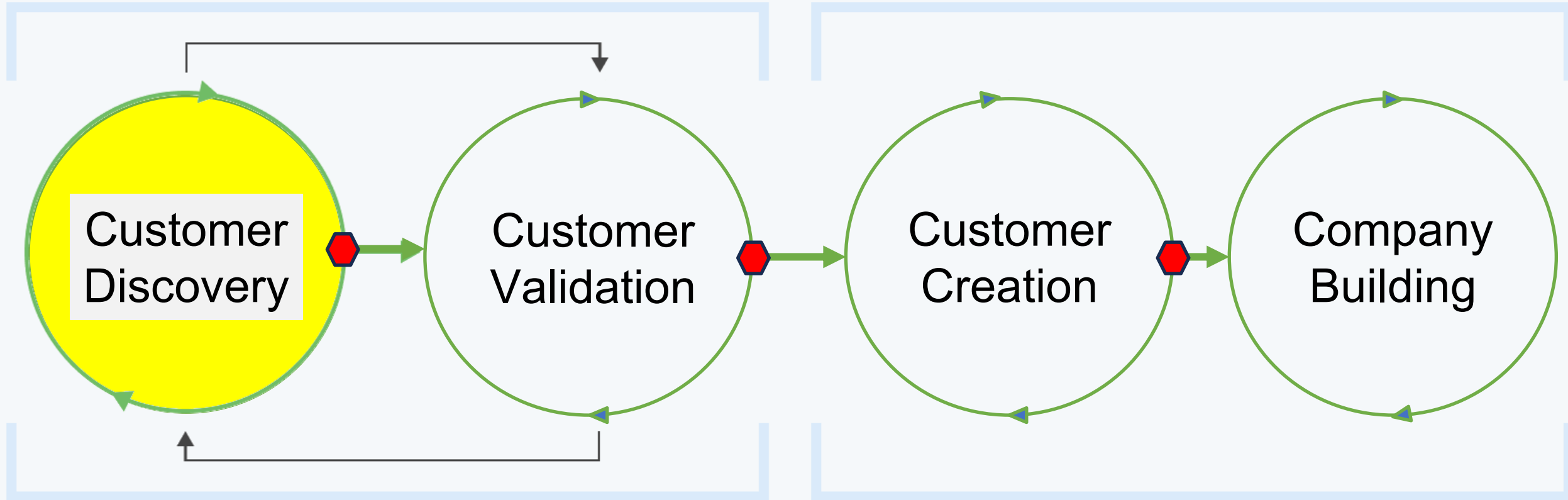
Test here

Much more on this next week.

Customer Discovery

Research

Scaling



Customer discovery

- Lowers the odds of spending time/effort and getting nothing in return.
- Turns your initial hypotheses (**guesses**) about your customers into **facts**.



100 Customer Interviews

By March 26, 2026

QUESTIONS?



Fall in Love with the Problem

Lab2Market Validate PRIME DIRECTIVE

Your job is to
validate that a problem/need exists,
understand who has it
and only then
decide how best to solve it

You are not trying to educate your customers;
you are trying to learn from them.

The #1 reason startups fail:

42%

No market
need

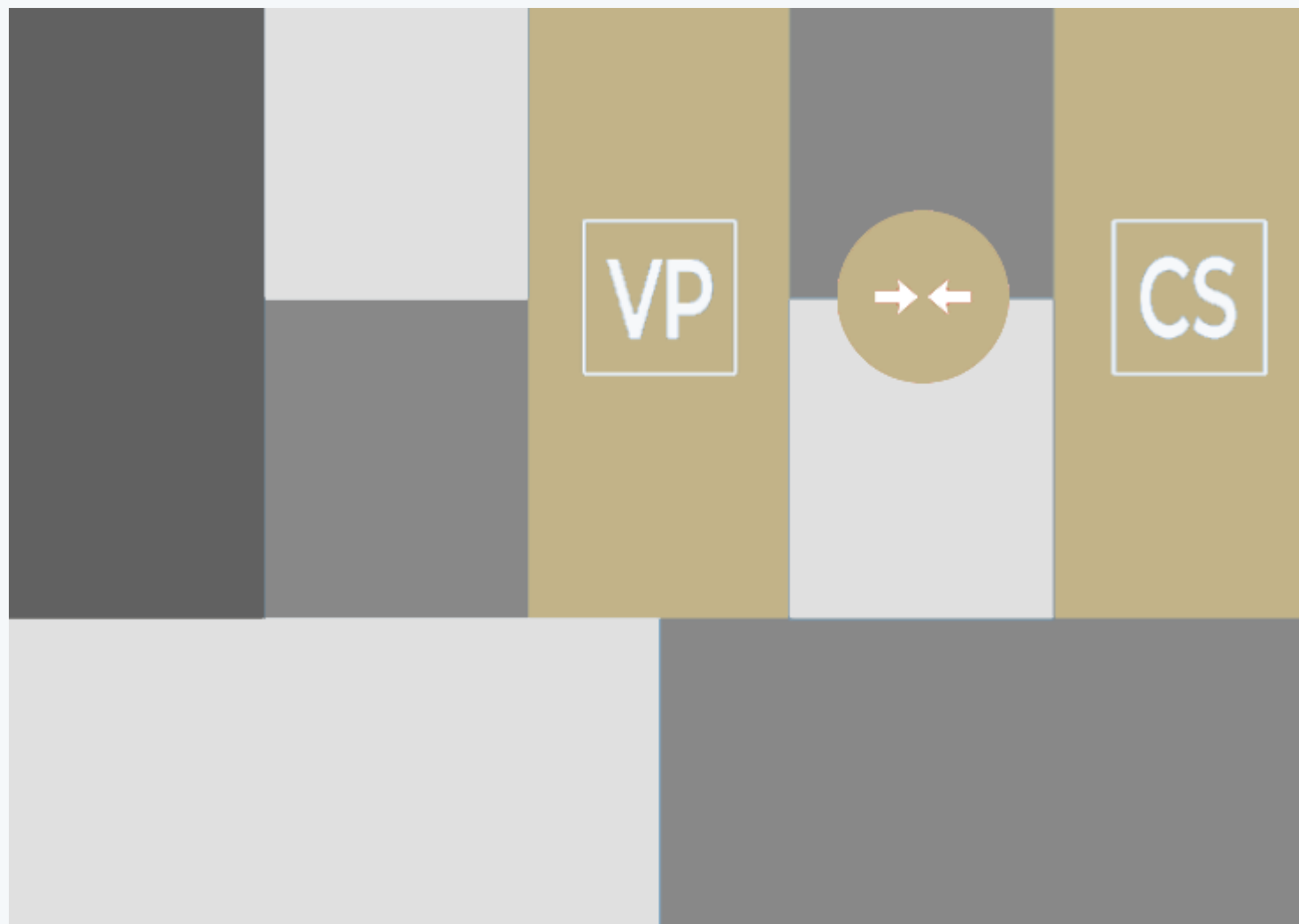
Problem versus Need

- Does your product/service solve a customer **problem** or serve a customer **need**?
- A **problem** is a challenge that must be solved in order to avoid **pain** for yourself or others. It is **required**.
- A **need** is a challenge that must be fulfilled in order to gain **pleasure** for yourself or others. It is **desired**.

Problem versus Need



Search for Product – Market fit



Value Proposition Canvas





Your assignment

Business Thesis – first draft

- Takes the form.....

Our _____help(s) _____who want to
Product/Service Customer Segment(s)

_____by _____
Job to be done Functional customer pain/gain (e.g., reducing, avoiding)

and_____.
Social/emotional customer pain/gain (e.g., prestige, happiness, confidence)

L2M _____

Business thesis - example

Our Chart plotter help(s) Ship Captains who want to

Product/Service Customer Segment(s)

navigate safely by Accurately tracking ship position

Job to be done Functional customer pain/gain (e.g., reducing, avoiding)

and Knowing sea conditions ahead.

Social/emotional customer pain/gain (e.g. confidence)

Business Thesis – first draft (alternate form)

We do **X**

(the very specific thing you deliver)

for **Y**

(the very specific customer who values this)

so they can **Z**

(the positive outcome impossible without you),

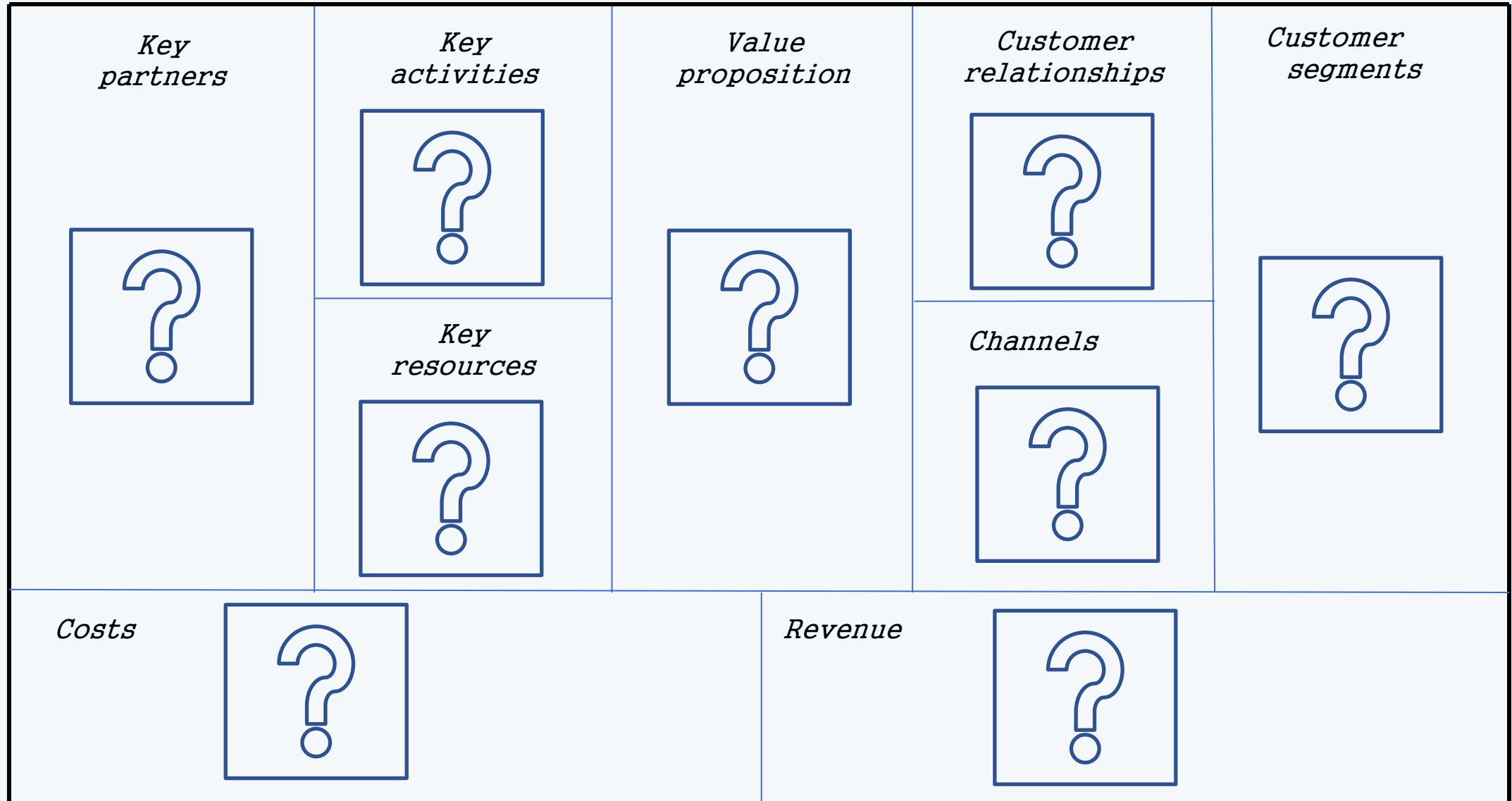
and ultimately **A**

(the real, downstream value to them)

Characteristics of a good business thesis:

- It should be concise, clear and focused
- It should describe a customer problem/need, and how you think your product / service will address it.
- It will guide your Business Model and Customer Discovery.

Business model canvas: first draft



Example:



GEOMATIC TECHNOLOGIES INCORPORATED

<i>Key partners</i>	<i>Key activities</i>	<i>Value proposition</i>	<i>Customer relationships</i>	<i>Customer segments</i>
PAL <ul style="list-style-type: none">- Aircraft- Office space- Admin support	Data: <ul style="list-style-type: none">- planning- collection- processing- analysis	Industry standard airborne data acquisition, processing, analysis, reports	Phone Mail-outs Meetings RFP's	Forestry Municipal
	<i>Key resources</i> Cameras Sensors IT Team (HR)		<i>Channels</i> Contract reports	
<i>Costs</i> Capex – equipment Opex – aircraft charter, equipment maintenance/repair, HR			<i>Revenue</i> Fee for service	



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QUESTIONS?



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- Texts:
 - Blank, S. and B. Dorf, 2020. **The Startup Owner's Manual**. John Wiley and Sons, Inc., 571p.
 - Osterwalder, A. and Y. Pigneur, 2010. **Business Model Generation**. John Wiley and Sons, Inc., 280p.
 - Constable, G., 2014. **Talking to Humans**. 86p.
 - Levine, Uri, 2023. **Fall in love with the problem, not the solution: A handbook for entrepreneurs**. Matt Holt, 394p.

Videos:

- [Conducting Customer Discovery Interviews - startupweekend \(wistia.com\)](#)
- [Harvard i-lab | Startup Secrets: Business Model - YouTube](#)
- [\(41\) Osterwalder explaining the Business Model Canvas in 6 Minutes – YouTube](#)
- [Falling in love with the problem - Uri Levine](#)
- Web:
 - [Steve Blank Innovation and Entrepreneurship](#)
 - [Ocean Opportunities: Science & Stories from the Sea](#)
 - [\(3\) LinkedIn](#) (The Ripple newsletter)



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THANK YOU

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