

# Design Thinking Course

MTA, Palmer AK 🏔️

board of  
innovation



# Your teams for today

01

**Rob T**  
**Joel**  
**Gary**  
**Diana**

02

**Wanda**  
**Kody**  
**Dan M**  
**Jamie**

03

**Michael**  
**Zak**  
**Rick**  
**Dan F**

04

**Jonathan**  
**Jared**  
**Akhil**  
**Justin**

05

**Jacki**  
**Adam**  
**Mike**  
**Robbie**



# Welcome

**JARED**



# Introductions

**WHO ARE THESE PEOPLE?**



**Hi! I'm Nick**



**Hi! I'm Isabelle**





**Hi! I'm Nick**



**Hi! I'm Isabelle**











[obligatory space picture]  
Our north star

# Our lifetime missions

how we measure our success

1

**Empower  
100 million  
people**  
to take action  
towards a  
positive future.

2

**Design  
1,000  
new businesses**  
with the  
world's largest  
corporates.



# We are an international team with superpowers

Our team crosses borders and countries. Our innovation programs are tailor-made for geographical and cultural context.

**A GLIMPSE ON SOME OF OUR ACTIVITIES WORLD-WIDE.**

**Our work:**

**25+**  
countries

**5**  
continents

**Our team:**

**15+**  
nationalities



# We help innovators succeed





A photograph of three women in a meeting room. One woman in a red top is pointing at a large sheet of paper covered in sticky notes. Two other women are looking at the paper. The room has a whiteboard in the background with some notes and a Coca-Cola can on the table. The image has a purple and pink color overlay.

# proximus



A photograph of three people in a meeting room. A woman with long dark hair is in the foreground, looking towards the right. Behind her, another woman is partially visible. In the center, a woman with long brown hair is pointing at a large board covered in many blue and yellow sticky notes. The board appears to be a design thinking canvas or a project plan. The room has a white wall and a window in the background. The image has a purple and pink color overlay.

**growing a  
CUSTOMER CENTRIC CULTURE**

**By building  
DESIGN THINKING CAPABILITY**

**Through  
CONCRETE PROJECTS**







**Your turn!**



# Hi there!

- › Draw the person on your left
- › Hand over your piece of art
- › Introduce yourself!

"MY **NAME** IS

.....

I'M **REALLY GOOD** AT

.....

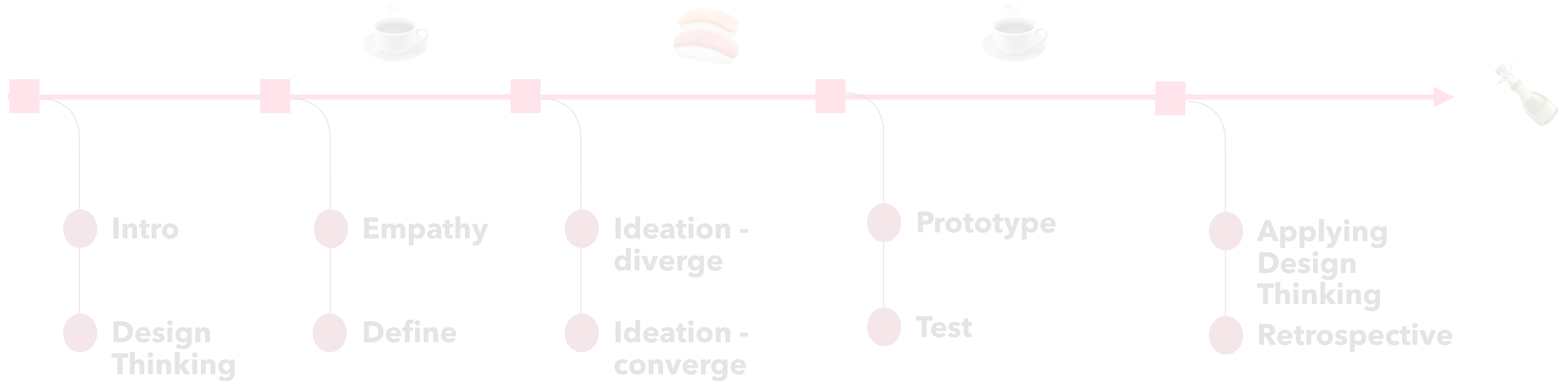
WHAT **NONE OF YOU KNOW ABOUT ME** IS

....."



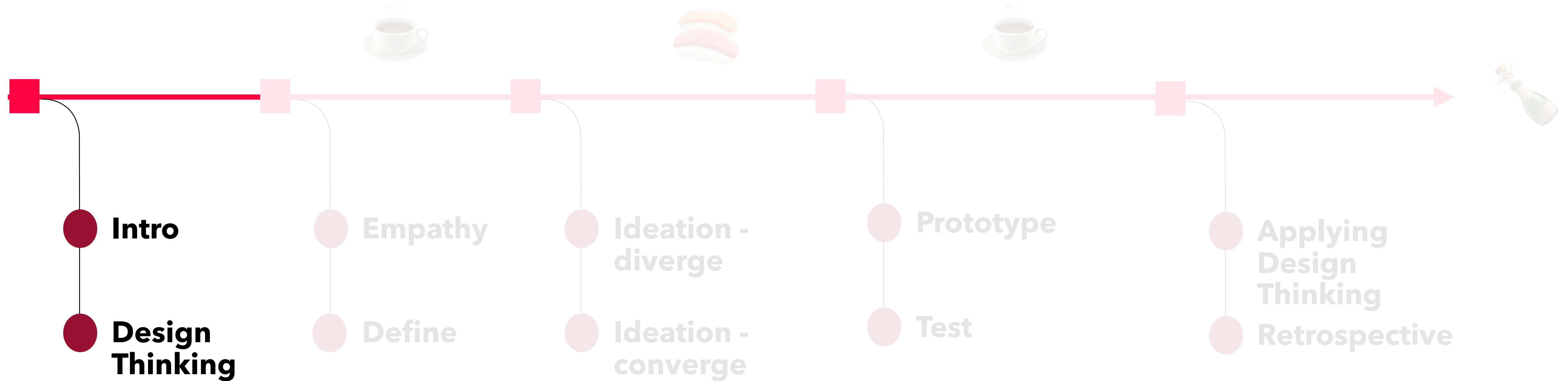
**Today!**

# Our journey today

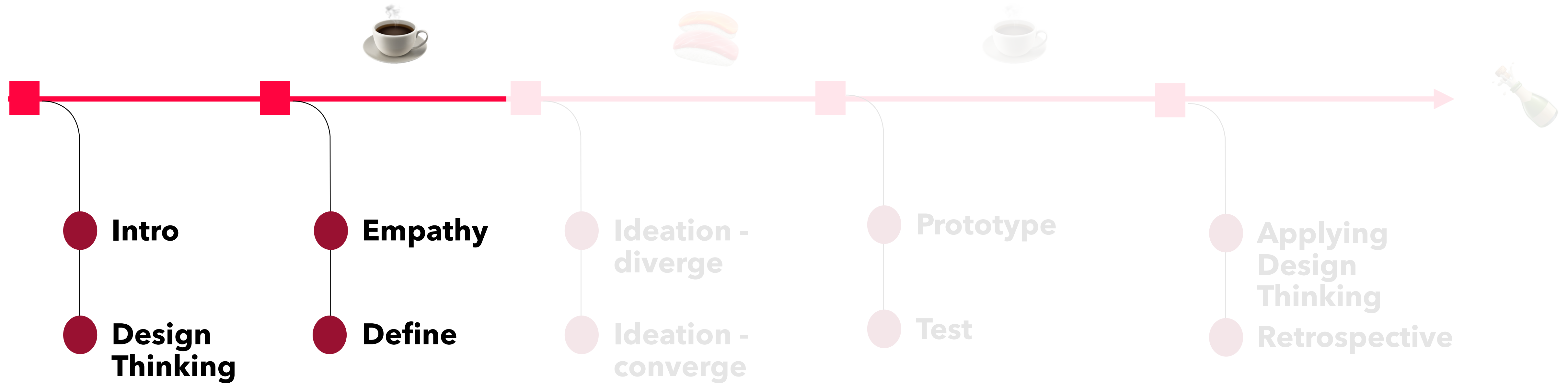




# Our journey today

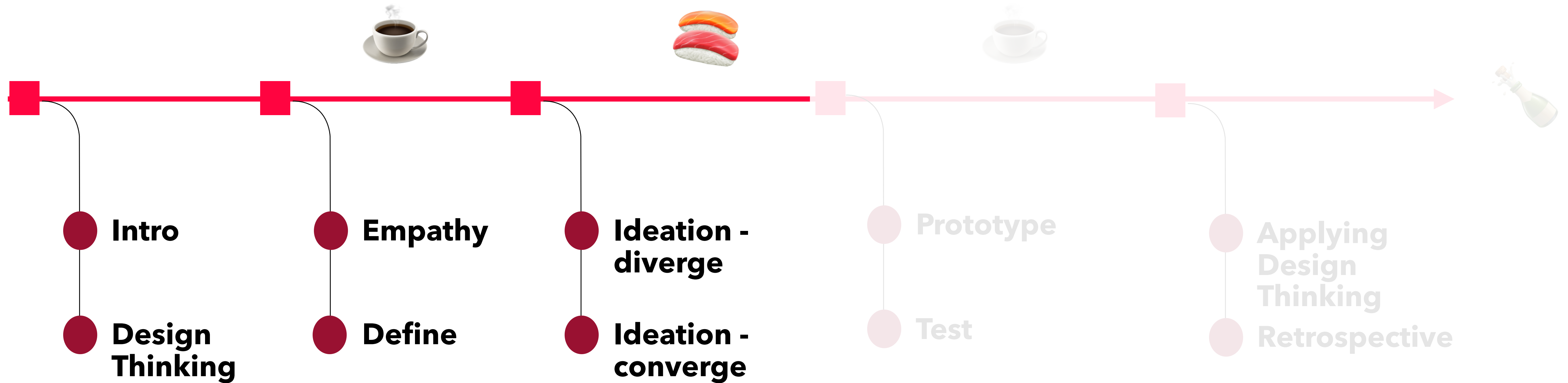


# Our journey today

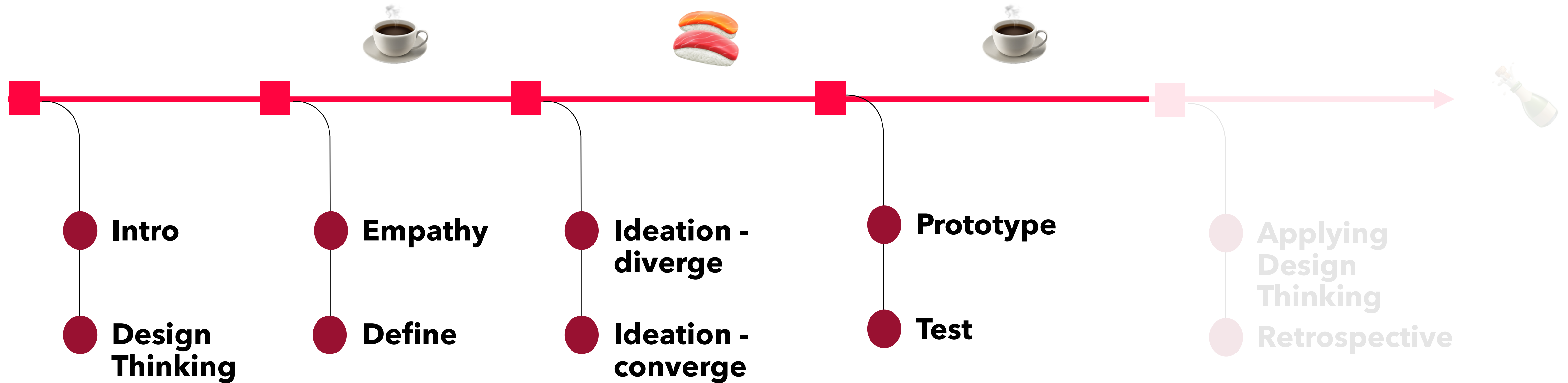




# Our journey today

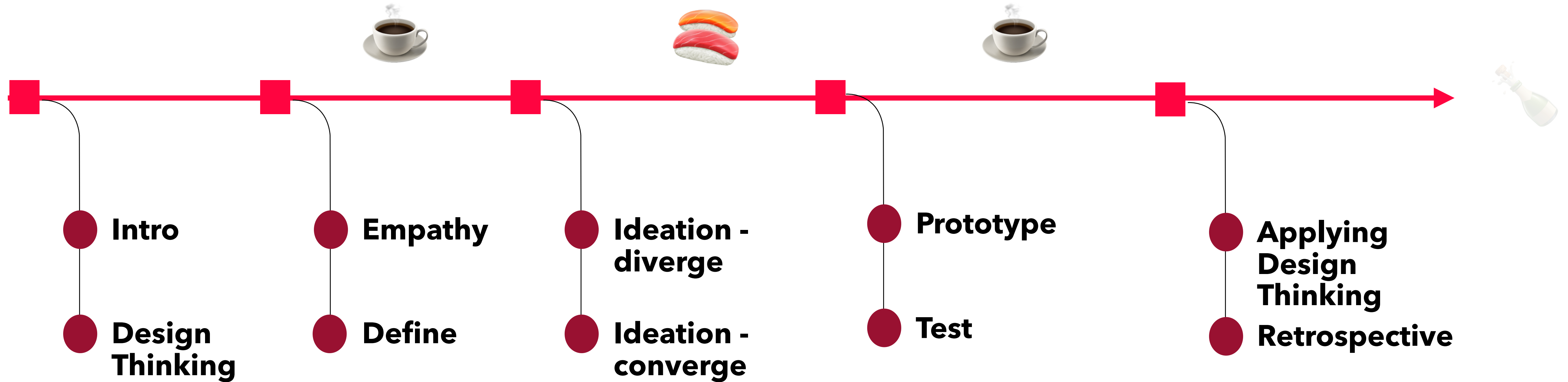


# Our journey today

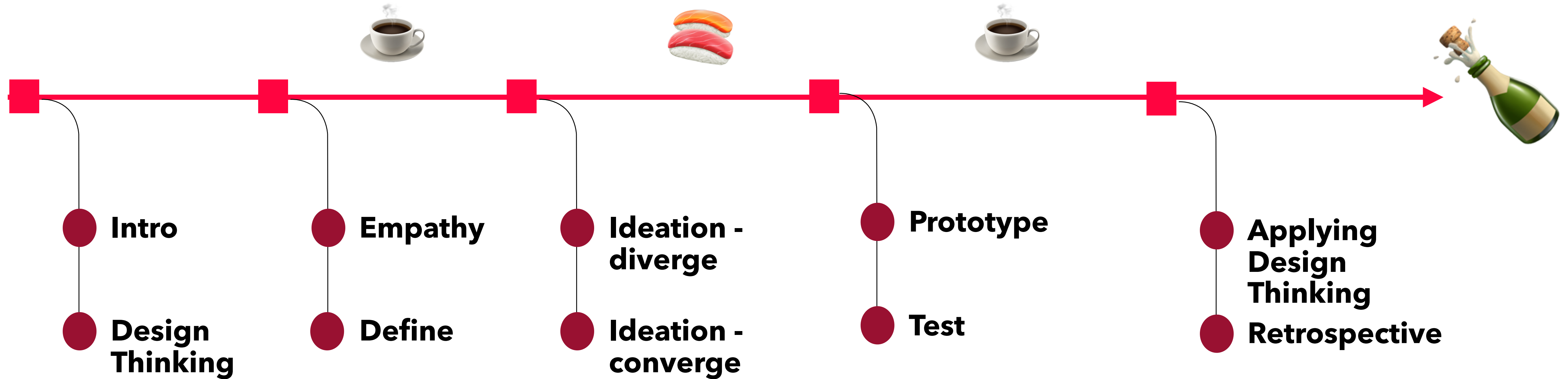




# Our journey today



# Our journey today

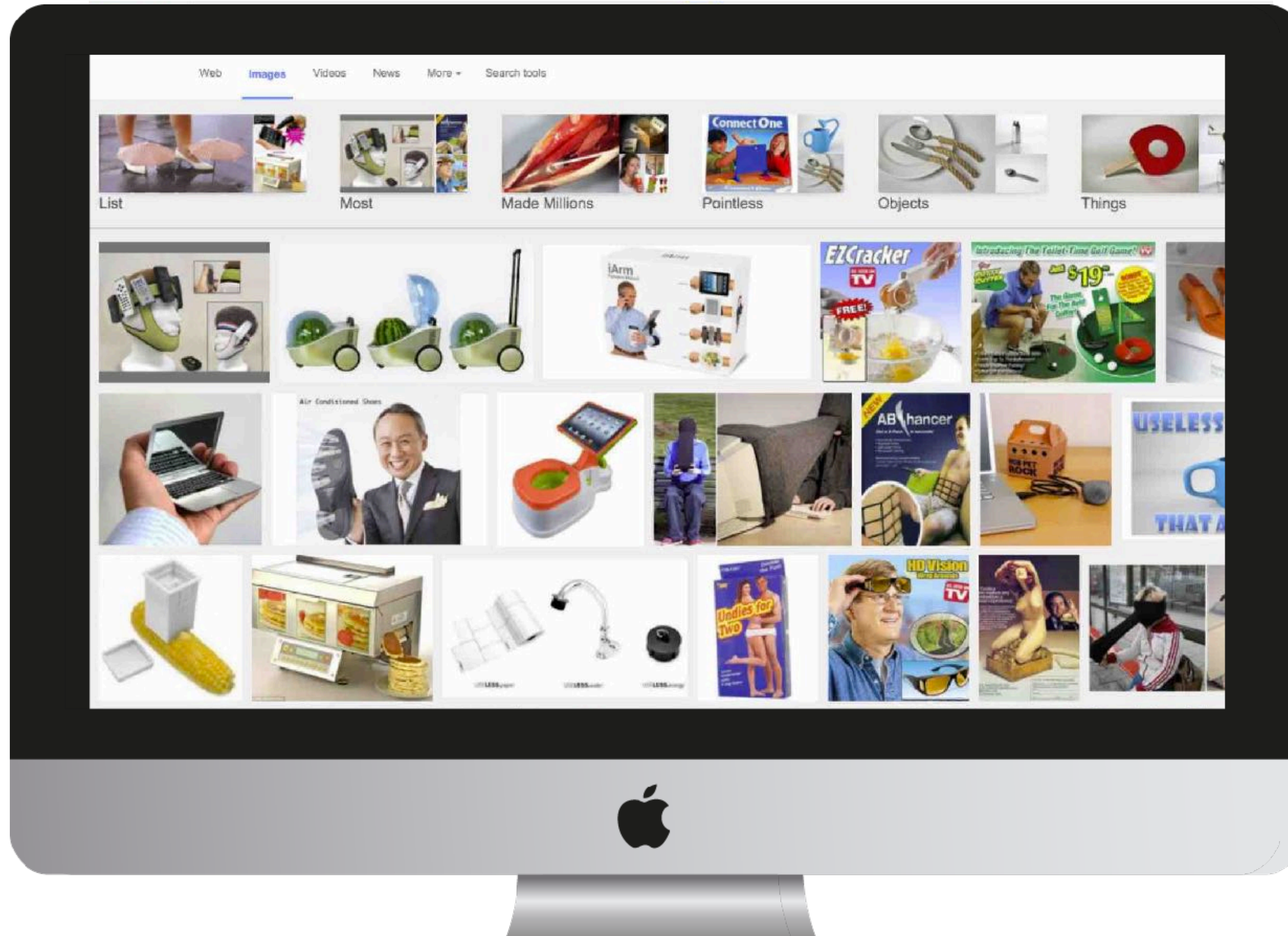




# Design Thinking

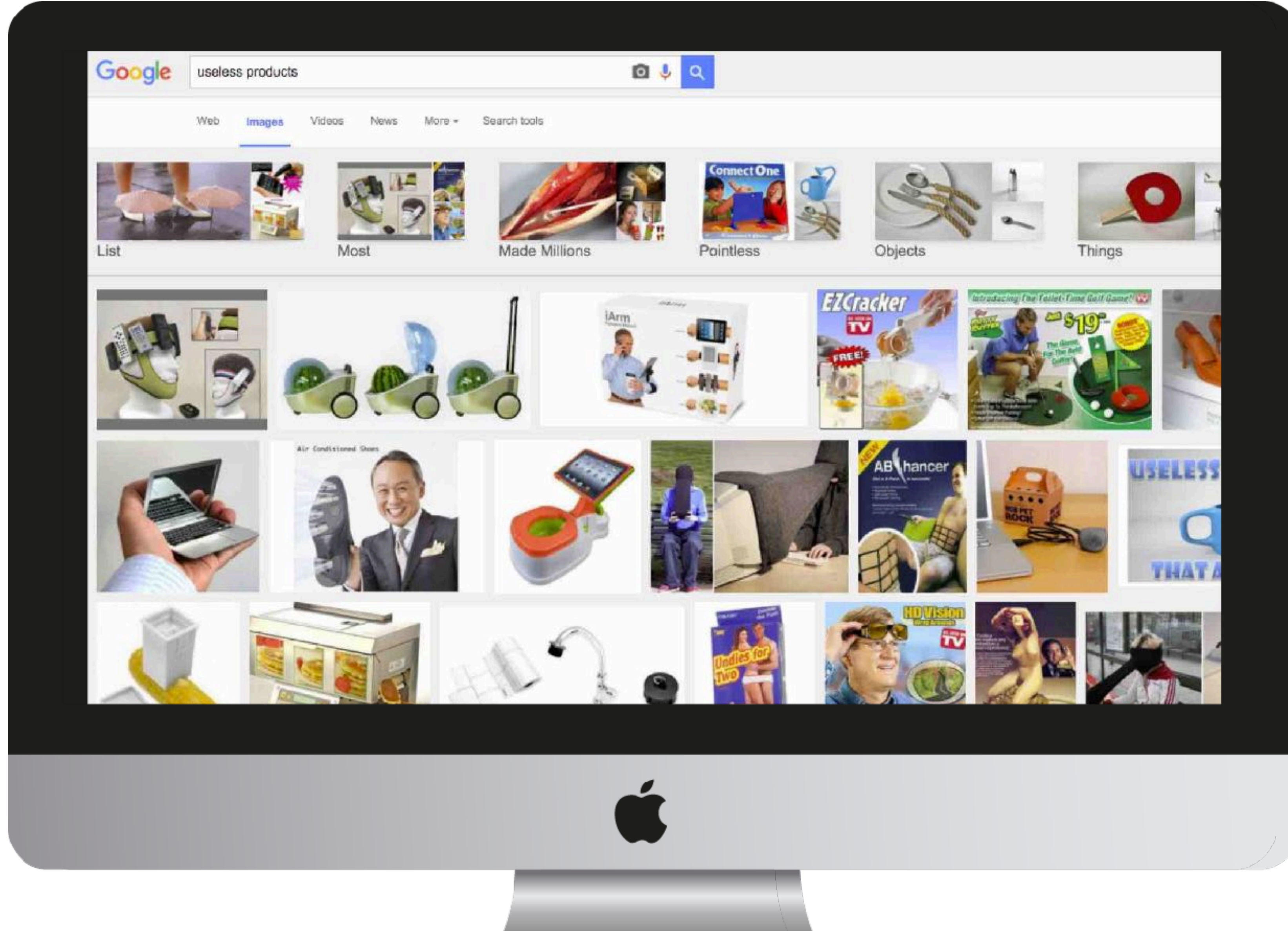
**A HUMAN CENTERED APPROACH TO  
INNOVATION**

# What did we look for?

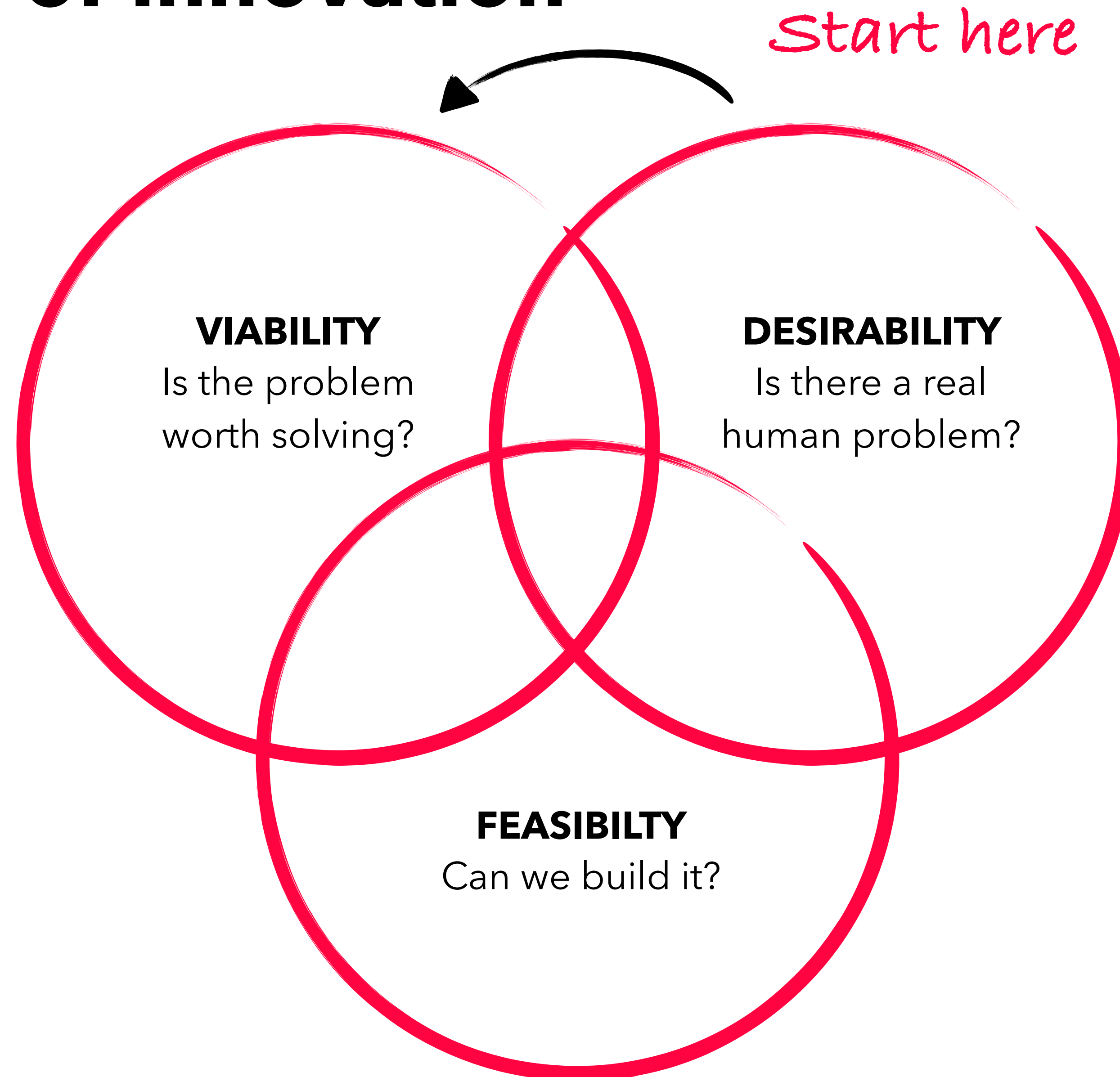




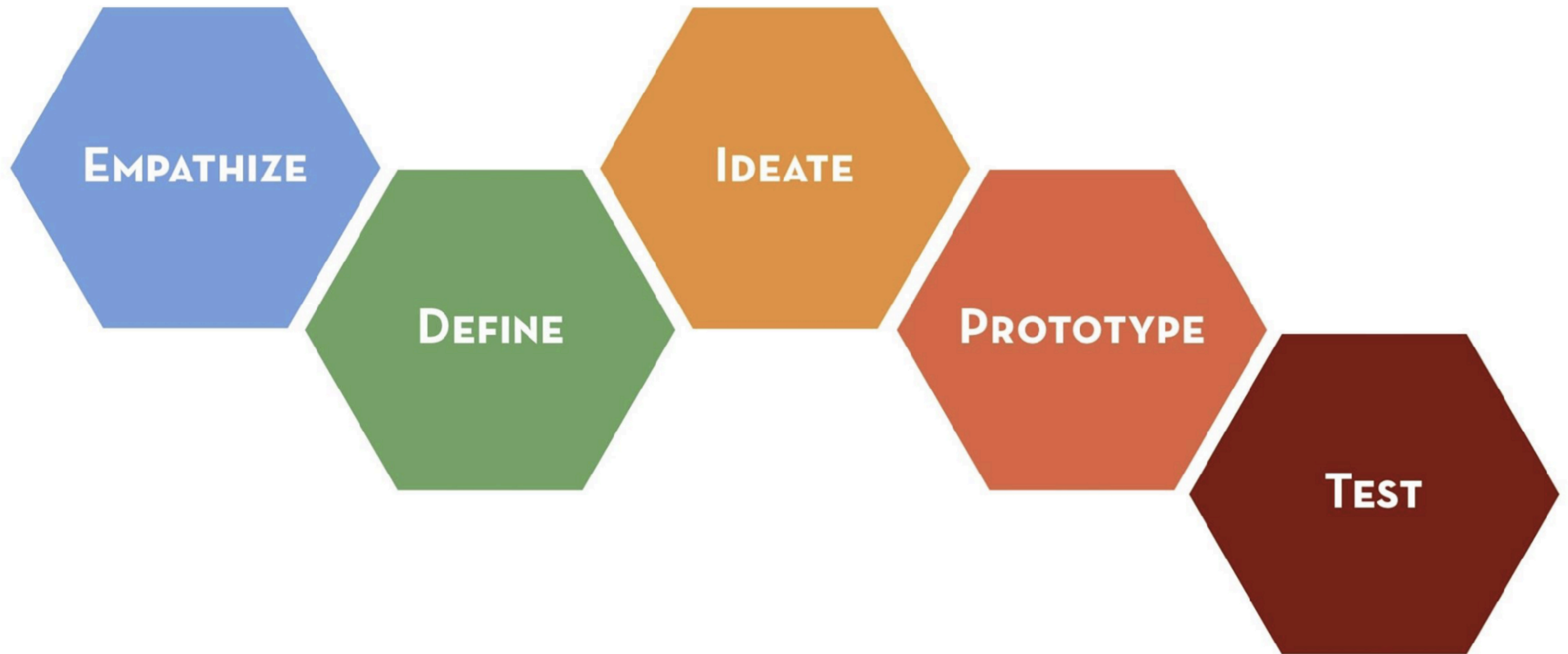
# What did we look for?



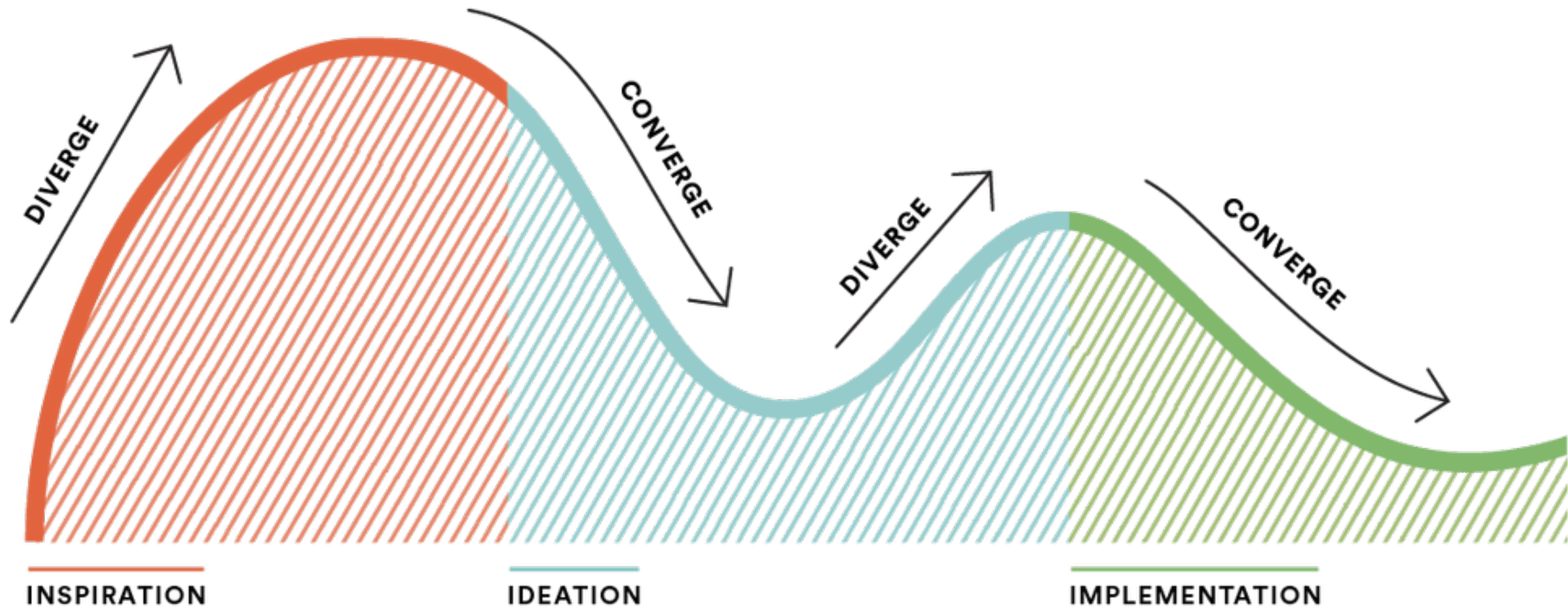
# Three lenses of innovation















**“Design Thinking is a conspiracy  
between IDEO and 3M”**

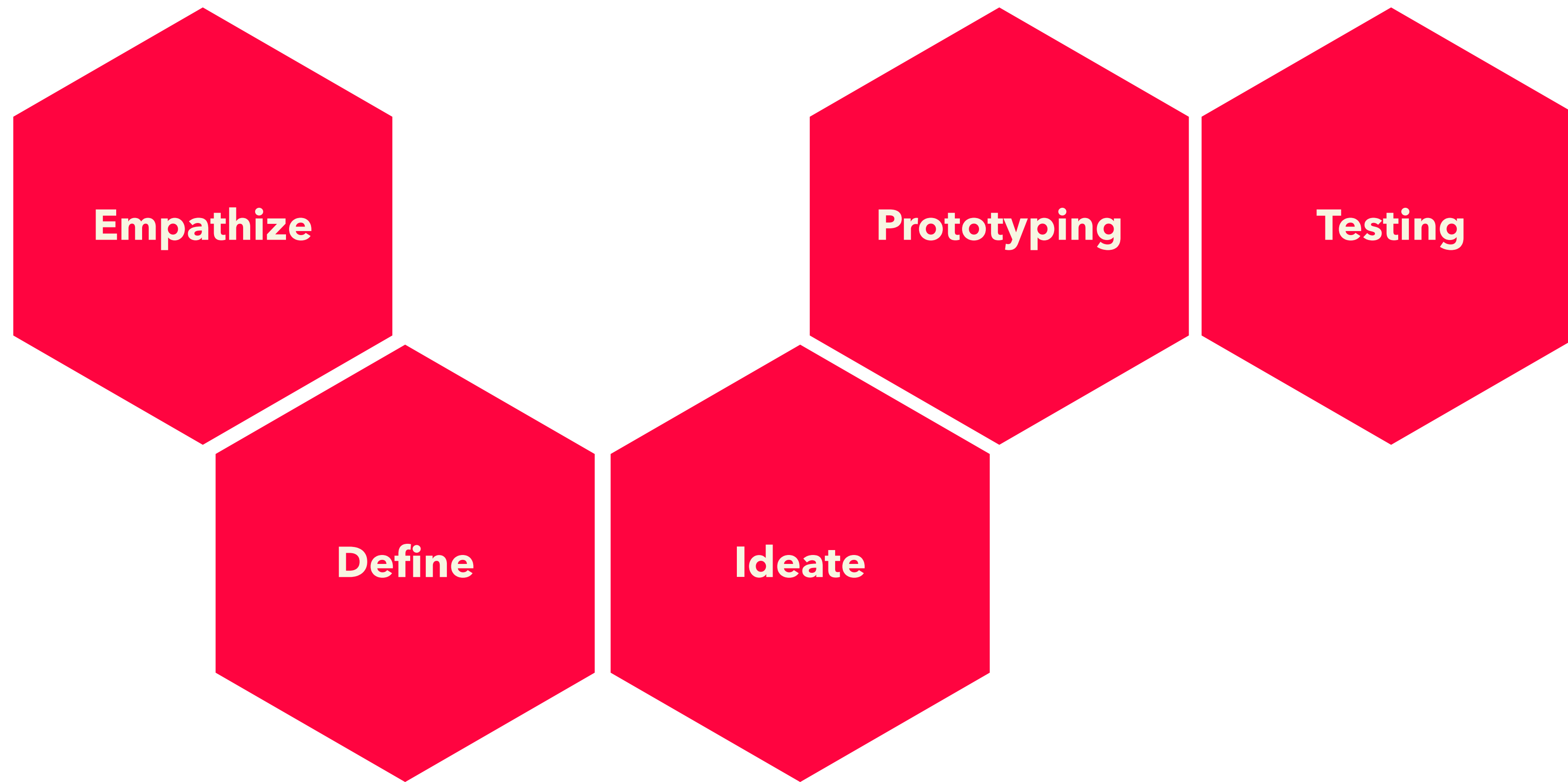




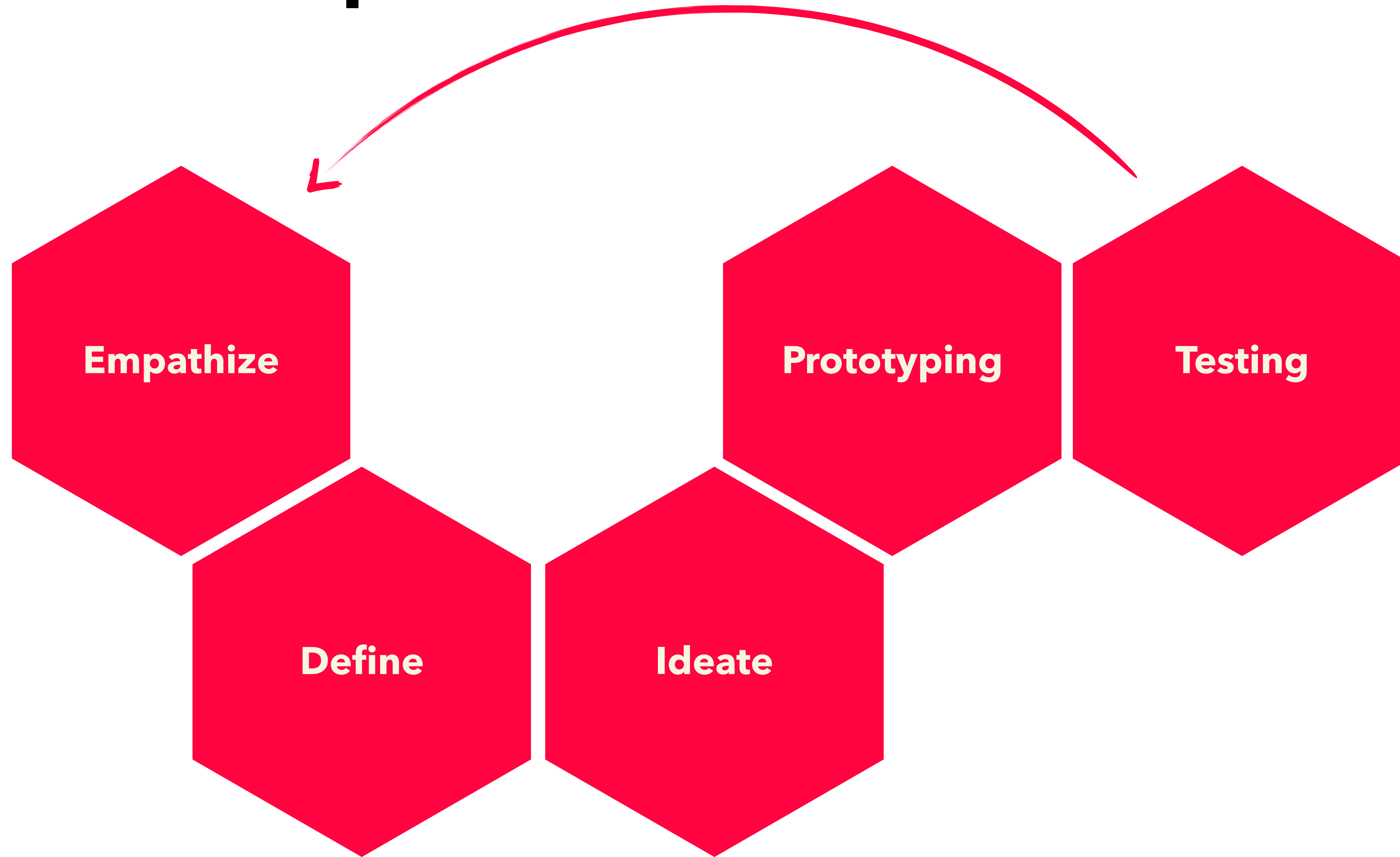
Our first project, the one that has inspired my first book,



# Design thinking process

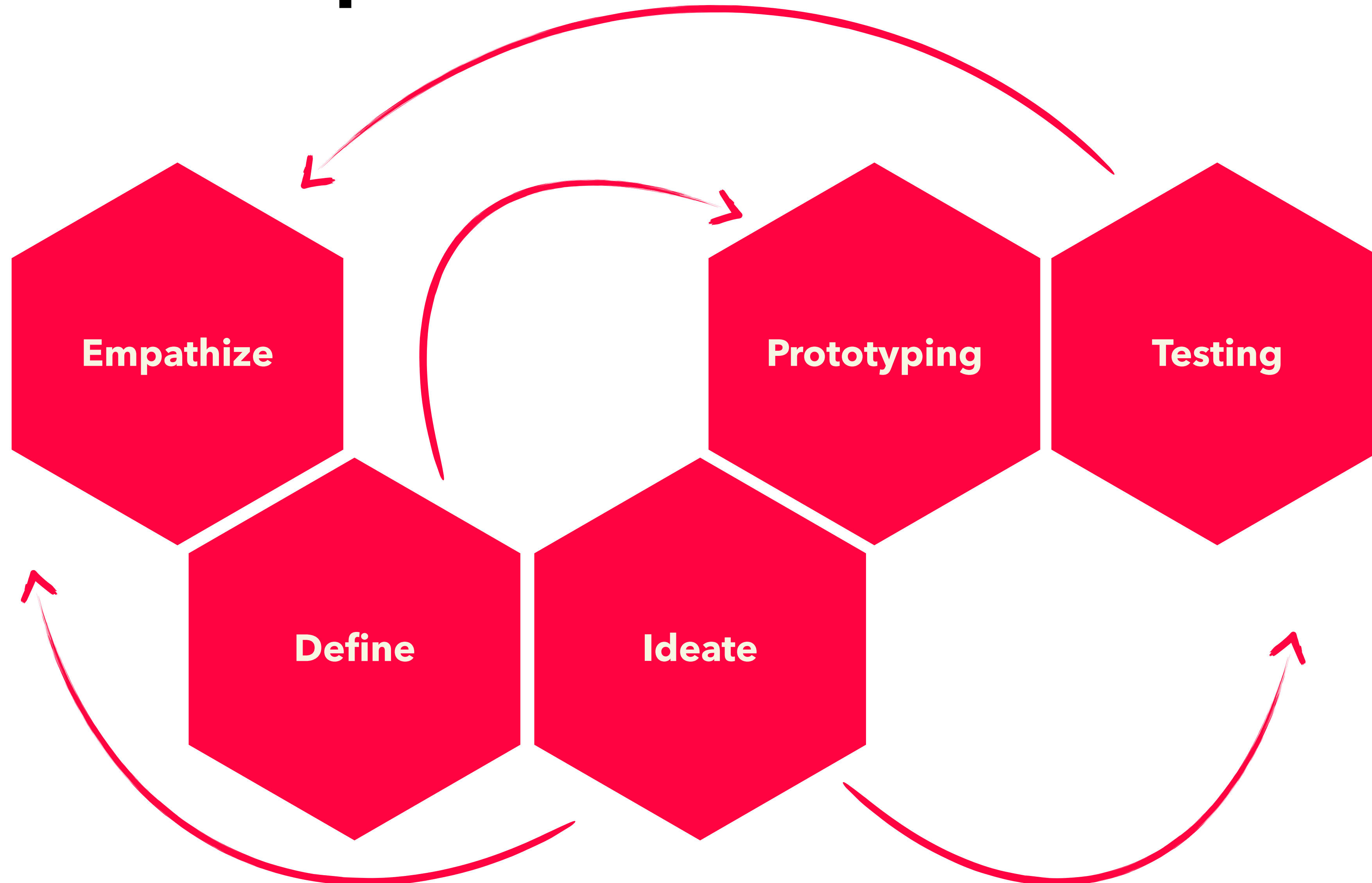


# A lean, iterative process





# A lean, iterative process



# Using design thinking

- › A strategic tool & mindset
- › A way to take on challenges by applying empathy
- › An approach to collective problem solving
- › A culture that fosters exploration and experimentation

Source: Idris Mootee



**Align on your  
business challenge**



# Three problem statements, five teams



## B2C

**Alleviate commuter pains between Anchorage and the MatSu Valley?**

03, 05



## B2B

**Offer recruiting support/services to Alaskan businesses?**

02



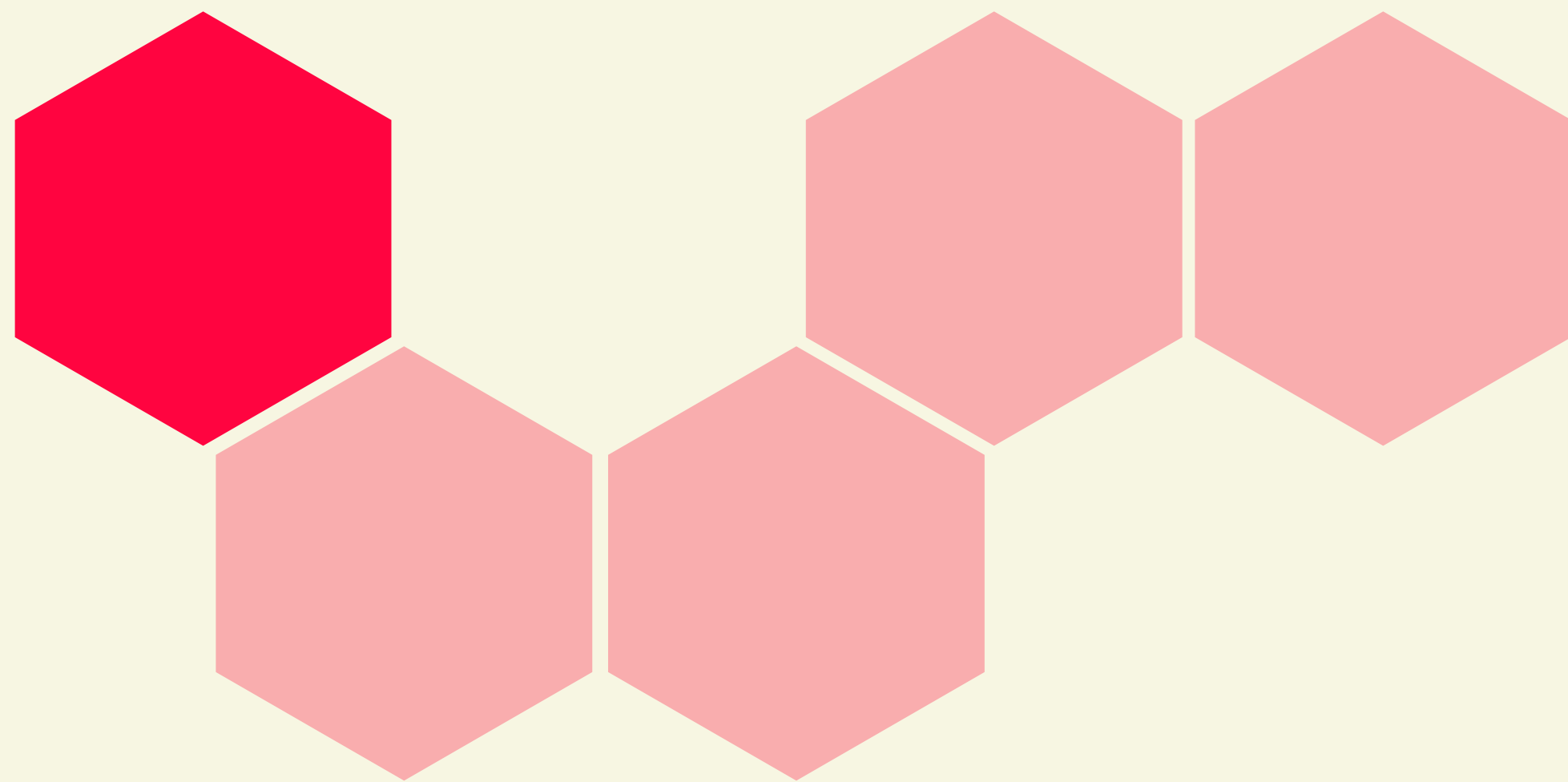
## Internal

**Empower our support center to better tackle general tech questions?**

01, 04



# Empathize







Warm-up



The background of the slide is a close-up photograph of water ripples. The ripples create a complex, organic pattern of light and dark teal/greenish-blue areas, with the light reflecting off the crests of the waves. The overall effect is a textured, shimmering surface.

# **The water story**



# Empathy

**Understanding the people you design for**



## Insights research

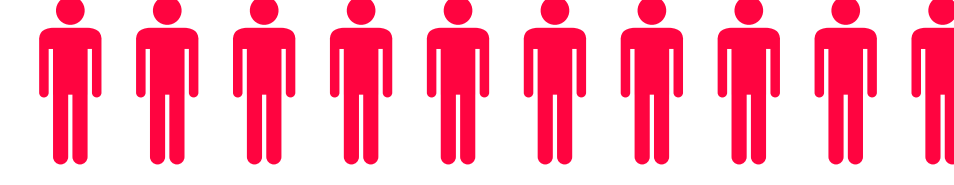
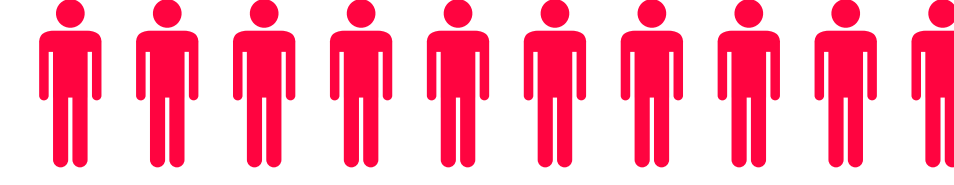


**10 people**



**100 insights ( what and why)**

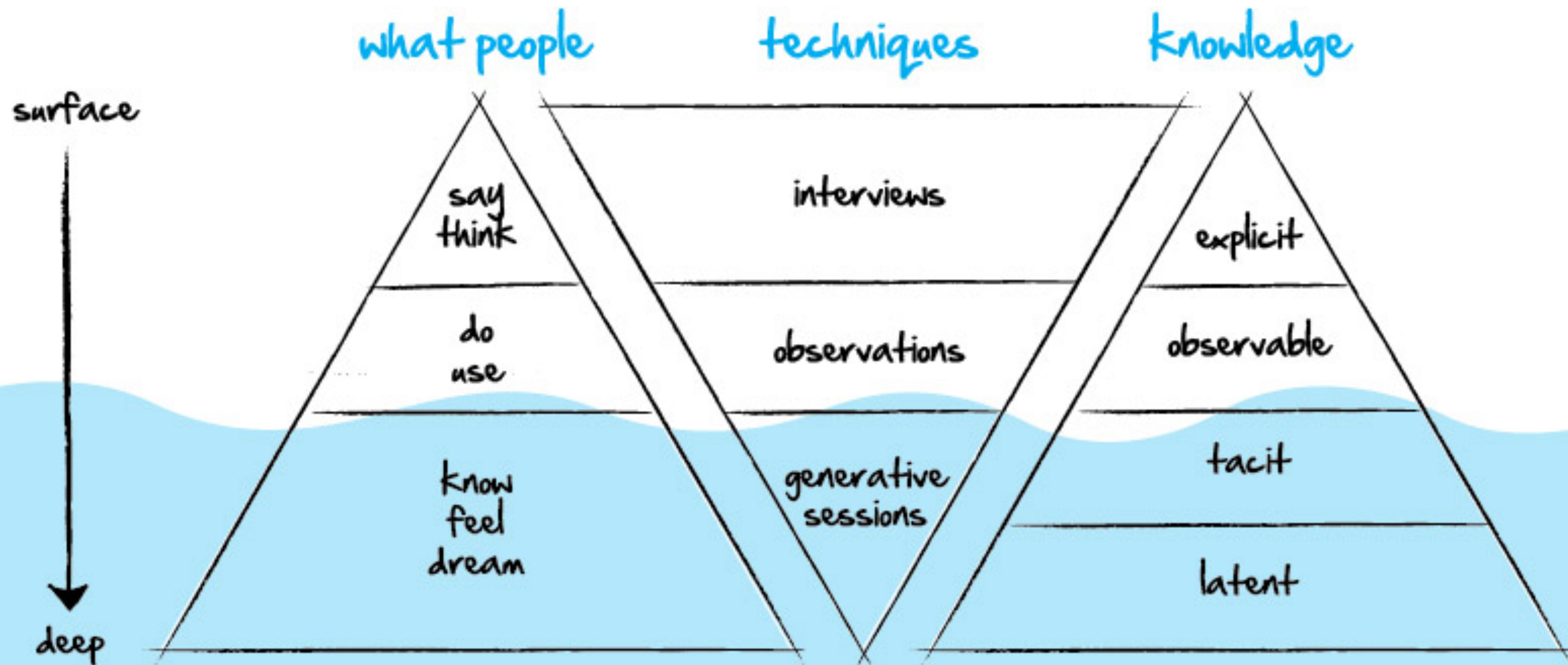
## Market research



**100 people**

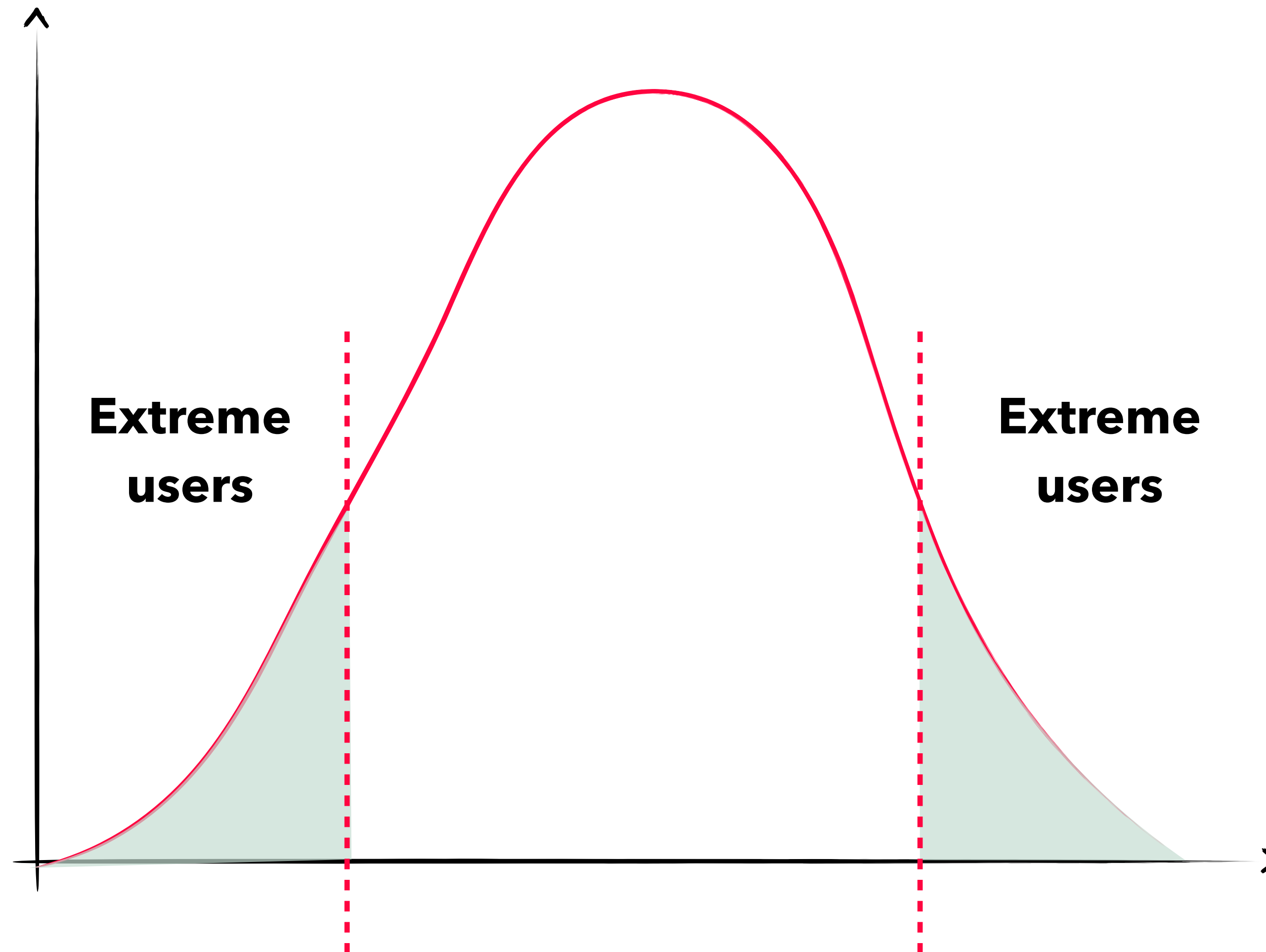


**10 truths (what)**





# Who to empathize with?





A young boy with short brown hair, shirtless and wearing green and black patterned shorts, is looking through a long telescope mounted on a black tripod. The telescope is positioned horizontally, and the boy is holding the eyepiece with both hands. The scene is set indoors, with a large window in the background showing a lush green forest. The word "Observation" is overlaid in large, white, sans-serif font across the center of the image.

# Observation



**“How might we make a  
better diaper?”**









A person is lying down inside a large, circular metal frame, possibly a tunnel or a large pipe, at night. The person is wearing a dark jacket and a patterned scarf. They are looking out through the circular opening at a city street. In the background, there is a multi-story building with several lit windows. The scene is dimly lit, with the primary light source being the building's windows and some distant streetlights. The word "Immerse" is overlaid in the center of the image.

# Immerse







A photograph of two men sitting on a snowy bench outdoors. The man on the left is wearing a black hooded jacket and a black headband, looking towards the other man. The man on the right is wearing a black jacket over a light blue shirt and a black beanie, smiling and gesturing with his hands. The background shows a snowy park area with a fence and buildings.

# Engage





**What not to do....**



# A better way to do it:

**Interviews with target audience**



**Key Insight**



**The Hippo Roller**





@Justin\_Wilcox

Nimbus Health

CustomerDevLabs.com

subscribe

4 Customer Discovery

Hack

1. Who

2. How

3. Why

4. How



# Problem validation questions

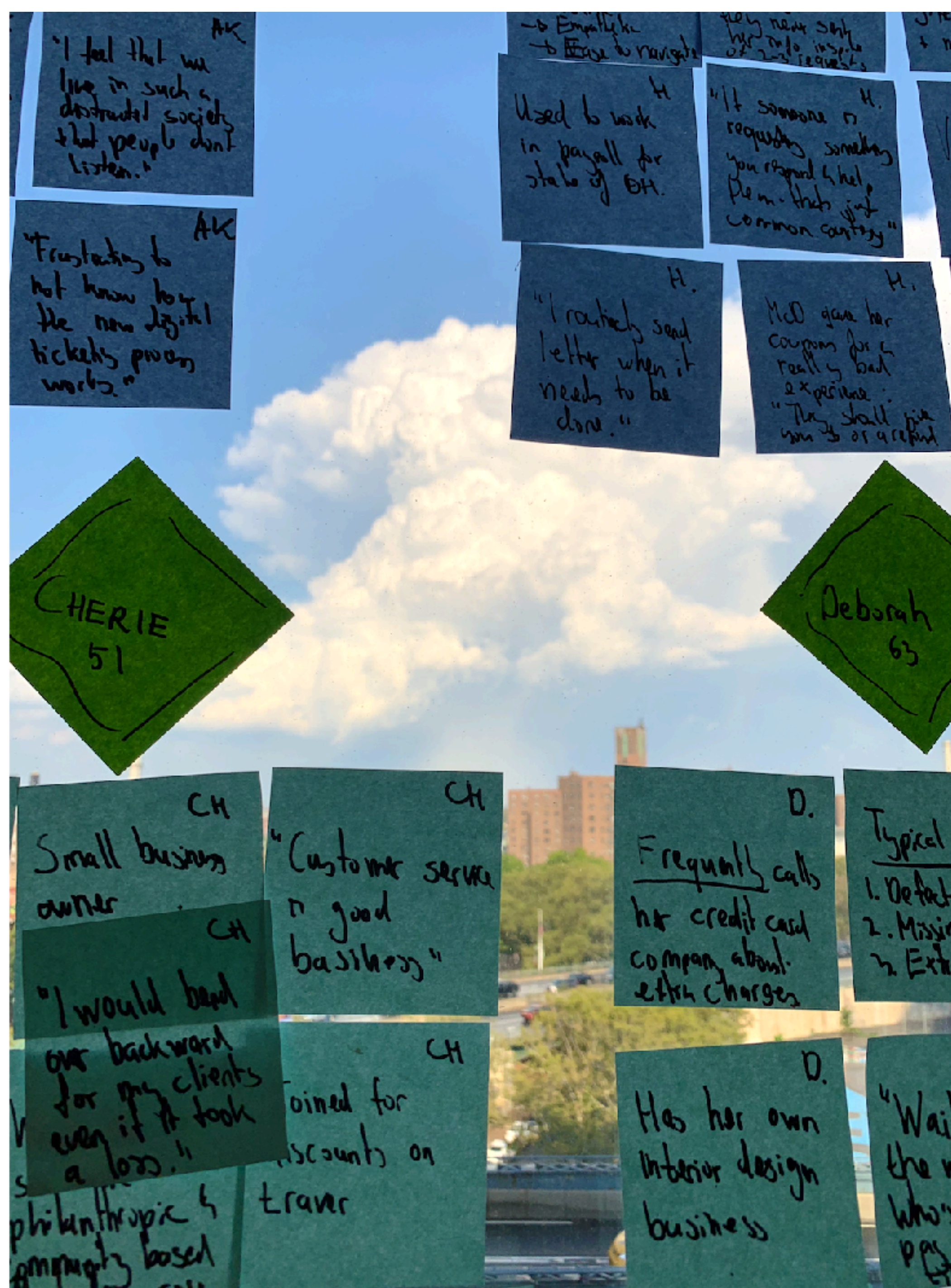
- **BREAK UP IN GROUPS OF 2 AND IDENTIFY 1 SCRIBE & 1 INTERVIEWER**  
**[GROUP] - 2'**
- **WRITE DOWN 3 KEY QUESTIONS AND POTENTIAL FOLLOW-UPS**  
**[INDIVIDUALLY] - 10'**
- **CALL SOMEBODY AND INTERVIEW THEM**  
**[SUB-GROUP] - 20'**
- **SHARE OUT**  
**[SUB-GROUP] - 15'**











AK  
"I feel that we live in such a distracted society that people don't listen."

AK  
"Frustrating to not know how the new digital tickets program works."

H  
Used to work in payroll for state of OH.

H.  
"I routinely send letter when it needs to be done."

H.  
"If someone is requesting something you respond & help them. That's just common courtesy"

H.  
McD gave her coupons for a really bad experience.  
"They shall give you 3 or 4 refund"

CHERIE  
51

Deborah  
63

CH  
Small business owner

CH  
"I would bend over backward for my clients even if it took a loss."

philanthropic & community based

CH  
"Customer service is good business"

CH  
joined for discounts on travel

D.  
Frequently calls her credit card company about extra charges

D.  
Has her own interior design business

Typical is  
1. Defects  
2. Missing  
3. Extra

"Waiting the way who's paying"



# Define







**“The framing of a problem is often far  
more essential than its solution”**

**- Albert Einstein**



## BUSINESS CHALLENGE

BECOME MOST  
COSTUMER  
CENTRIC TELCO IN  
ALASKA

## INNOVATION CHALLENGE

HOW MIGHT WE  
redefine our  
app expectations for  
people moving into  
smaller towns jointly  
pay the bills  
understood



Action oriented

Assumes many ways to solve

# How Might We

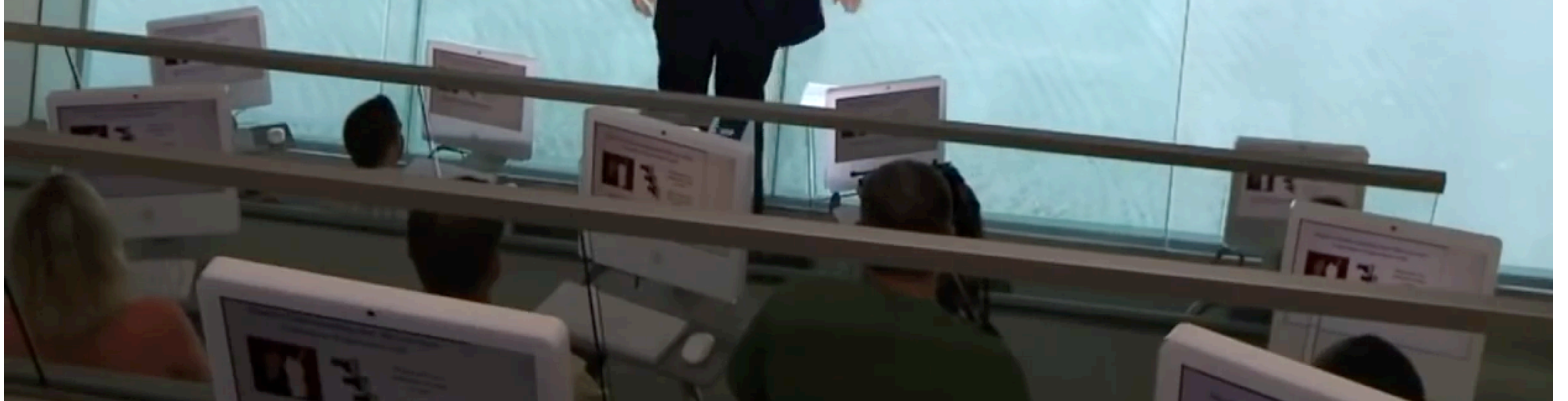
We're in it together



**Customer Segment**  
**+**  
**Job to be done**



**Market Understanding  
That Mirrors  
How Customers  
Experience Life**





# HOW MIGHT WE BUILDER

Team

1

**CUSTOMER SEGMENT**

Describe what sets this customer segment apart  
e.g. low income college students, HR managers in life sciences, parents who pack lunch for their kids, etc.

2

**JOB TO BE DONE**

Describe the customer's need and expected outcome  
e.g. get insights in spending to avoid overdrafts, hire diverse talent, give kids healthy lunch with minimal effort

**ELDERLY PEOPLE MOVING  
TO A SMALLER HOUSE/  
APARTMENT**

**MOVE CURRENT TELCO PLAN  
WITH MINIMAL EFFORT**

**STUDENTS WHO ARE  
MOVING FROM STUDENT  
HOUSING INTO CO-HOUSING**

**ADAPT THE PLAN TO FIT THE  
NEW LIVING CONDITIONS  
SO THEY FEEL UNDERSTOOD**



3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE**

for **CUSTOMER SEGMENT**

so that **JOB TO BE DONE?**



**About this tool**  
The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement forces teams to have a clearer scope that is customer centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development

printsize: tabloid  
boardofinnovation.com/tools

## HOW MIGHT WE BUILDER

Team

1

CUSTOMER SEGMENT

Describe what sets this customer segment apart  
e.g. low income college students, HR managers in life sciences, parents who pack lunch for their kids, etc.

2

JOB TO BE DONE

Describe the customer's need and expected outcome  
e.g. get insights in spending to avoid overdrafts, hire diverse talent, give kids healthy lunch with minimal effort

ELDERLY PEOPLE MOVING  
TO A SMALLER HOUSE/  
APARTMENT

MOVE CURRENT TELCO  
PLAN WITH MINIMAL  
EFFORT

STUDENTS WHO ARE  
MOVING FROM STUDENT  
HOUSING INTO CO-  
HOUSING

ADAPT THE PLAN TO FIT THE  
NEW LIVING CONDITIONS  
SO THEY FEEL UNDERSTOOD

3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE**

for **CUSTOMER SEGMENT**

so that **JOB TO BE DONE?**



**About this tool**  
The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement forces teams to have a clearer scope that is customer centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development

printsize: tabloid  
boardofinnovation.com/tools



3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW RE-DESIGN OUR OPERATIONS

FOR STUDENTS MOVING INTO CO-HOUSING

SO THAT THE PLAN MOVES WITH MINIMAL EFFORT

Team

1

CUSTOMER SEGMENT

Describe what sets this customer segment apart  
e.g. low income college students, HR managers in life sciences, parents who pack lunch for their kids, etc.

2

JOB TO BE DONE

Describe the customer's need and expected outcome  
e.g. get insights in spending to avoid overdrafts, hire diverse talent, give kids healthy lunch with minimal effort

ELDERLY PEOPLE MOVING TO A SMALLER HOUSE/ APARTMENT

MOVE CURRENT TELCO PLAN WITH MINIMAL EFFORT

STUDENTS WHO ARE MOVING FROM STUDENT HOUSING INTO CO-HOUSING

ADAPT THE PLAN TO FIT THE NEW LIVING CONDITIONS SO THEY FEEL UNDERSTOOD

3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE**

for **CUSTOMER SEGMENT**

so that **JOB TO BE DONE?**

board of innovation

About this tool

The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement forces teams to have a clearer scope that is customer centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development

PRETIZOR

boardofinnovation.com/tools



3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW RE-IMAGINE OUR APPROACH  
FOR ELDERLY PEOPLE MOVING TO SMALLER HOUSING  
SO THAT THEY ADAPT THEIR PLAN AND FEEL UNDERSTOOD

board of innovation

About this tool

The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement forces teams to have a clearer scope that is customer centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development

PRETIZOR

boardofinnovation.com/tools

HOW MIGHT WE BUILDER

1

CUSTOMER SEGMENT

Describe what sets this customer segment apart  
e.g. low income college students, HR managers in life sciences, parents who pack lunch for their kids, etc.

2

JOB TO BE DONE

Describe the customer's need and expected outcome  
e.g. get insights in spending to avoid overdrafts, hire diverse talent, give kids healthy lunch with minimal effort

ELDERLY PEOPLE MOVING TO A SMALLER HOUSE/ APARTMENT

MOVE CURRENT TELCO PLAN WITH MINIMAL EFFORT

STUDENTS WHO ARE MOVING FROM STUDENT HOUSING INTO CO-HOUSING

ADAPT THE PLAN TO FIT THE NEW LIVING CONDITIONS SO THEY FEEL UNDERSTOOD

3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE** for **CUSTOMER SEGMENT** so that **JOB TO BE DONE?**  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) **SCOPE**

for **CUSTOMER SEGMENT**

so that **JOB TO BE DONE?**

board of innovation

About this tool

The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement forces teams to have a clearer scope that is customer centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development

PRETIZOR

boardofinnovation.com/tools



# HMW BUILDER

- > **CHOOSE 3 CUSTOMER SEGMENTS**  
[INDIVIDUALLY] - 2'
  
- > **DEFINE 3 JOBS TO BE DONE**  
**TAKING INTO ACCOUNT THE**  
**INTERVIEWS**  
[INDIVIDUALLY] - 10'
  
- > **DEFINE 1 HMW STATEMENT**  
[INDIVIDUALLY] - 10'
  
- > **SHARE OUT & DECIDE**  
[GROUP] - 15'

HOW MIGHT WE BUILDER

Team

1

CUSTOMER SEGMENT

Describe what sets this customer segment apart  
e.g. low income college students, HR managers in life sciences, parents who pack lunch for their kids, etc.

2

JOB TO BE DONE

Describe the customer's need and expected outcome  
e.g. get insights in spending to avoid overdrafts, hire diverse talent, give kids healthy lunch with minimal effort

3

HOW MIGHT WE (HMW) STATEMENT

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) SCOPE for CUSTOMER SEGMENT so that JOB TO BE DONE?  
e.g. HMW re-design the mobile banking experience for low income college students so that they get insight in spending and avoid overdraft fees?  
e.g. HMW design a solution for HR managers in life sciences so they can hire diverse talent  
e.g. HMW improve our offering for partners who pack lunch for their kids so they can give their kids a healthy lunch with minimal effort?

HMW (re-imagine/re-design/improve/design/enable/nudge/support/...) SCOPE

for CUSTOMER SEGMENT

so that JOB TO BE DONE?

board of innovation

About this tool

The "How Might We" builder was designed to help teams turn a business challenge into a How Might We (HMW) statement.

Reformulating a business challenge as a HMW statement focuses teams to have a clearer scope that is customer-centric by definition. This exercise can happen at the beginning of

the innovation process to guide problem exploration or at the end of the problem exploration phase to synthesize key insights before starting solution development.

© 2020

perkins+will

boardofinnovation.com/tools



**10:00**

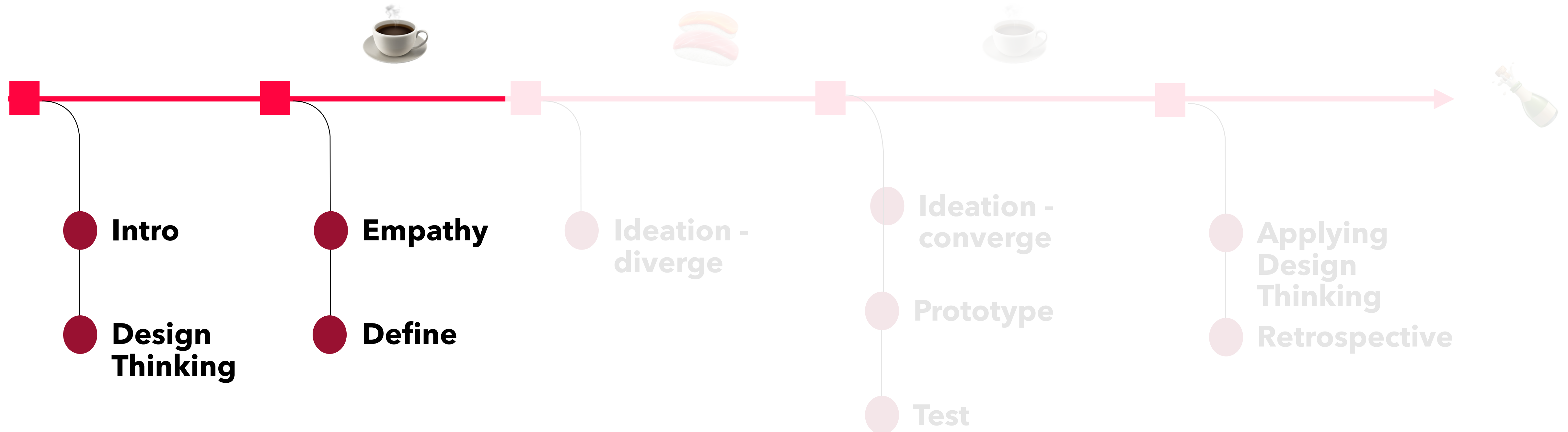


A woman is lying on her back on a running track, which has green and red lanes separated by white lines. She is wearing a white crop top, black track pants with three white stripes down each leg, and black Converse sneakers with yellow soles. Her hands are raised above her head, and she is looking up. The text "A quick break" and "10 min" is overlaid in white on the image.

**A quick break**  
10 min

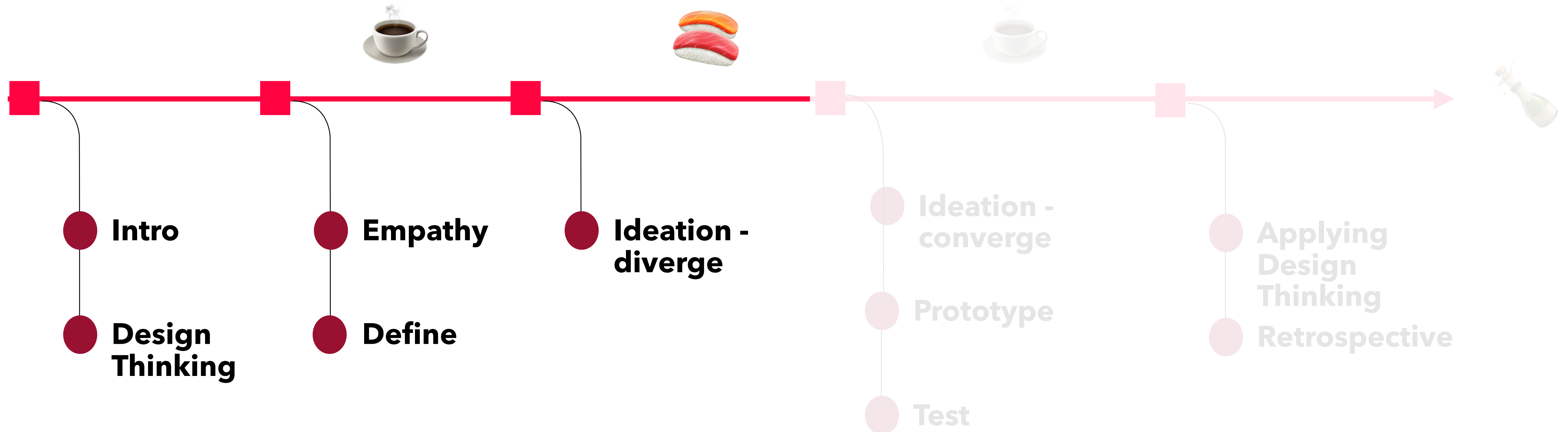


# Our journey today



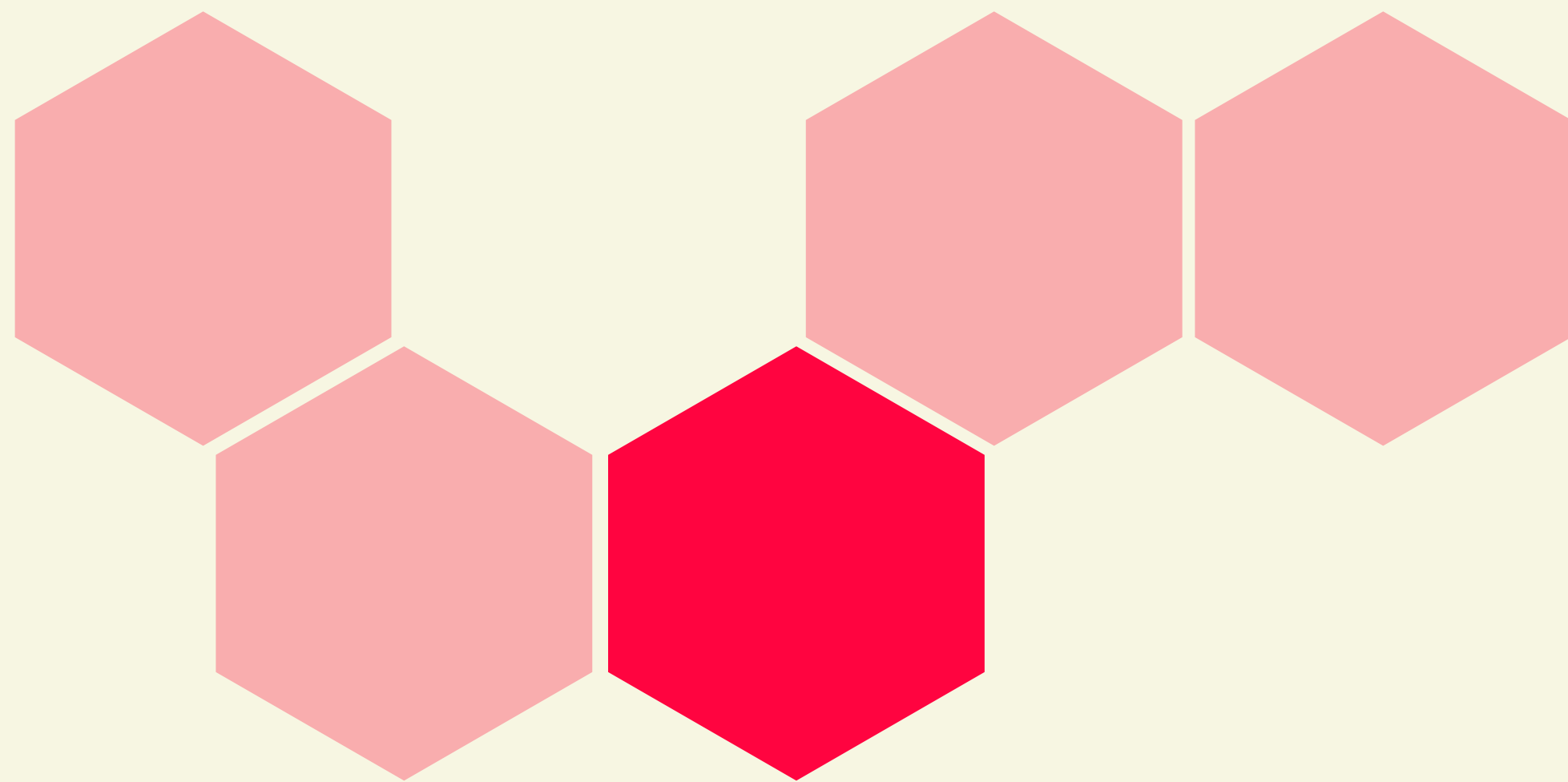


# Our journey today





# Ideate





# Ideation Rules

**Bringing structure to the chaos**





**“The best way to have  
a great idea is to have  
lots of ideas”**

**- Linus Pauling, Chemist**



**Rule #1**  
**There are no**  
**bad ideas**





**Rule #2**  
**Capture**  
**everything**





**Rule #3**  
**Go for hybrid**  
**brainstorming**





**Rule #4**  
**Quantity**  
**over quality**





# Brainstorm cards

**Analogy Thinking**



# Brainstorm cards

LOOK FOR IDEAS IN OTHER PLACES





# The 4 triggers of innovation

## Technological trends.

board of  
innovation

## Customer trends.

board of  
innovation

## Regulation trends.

board of  
innovation

## Market trends.

board of  
innovation

amazon go

### WHAT IF

#### No staff was required?

Wheelys and Amazon (through Amazon Go) are rolling out unmanned stores; CitizenM hotels have self-service receptions; new underground lines like 'The lilac lane' in milan have driverless trains. How can you design your service with no humans involved?

Disney

### WHAT IF

#### You could increase inclusion?

Imagine ways you can address disadvantaged groups, and tailor your products and services to reduce the gap. Think of targeted discounts, or ad-hoc features. For example, Disney developed "Feeling Fireworks", a tactile experience that aims to give a perception of fireworks for the visually impaired.

3D HUBS

### WHAT IF

#### You had to source everything locally?

Imagine that your customers will only buy from you if you can prove that all value in your product is created within 100 miles of the store. Instead of providing a centralized service, 3D Hubs, a platform for 3D printing, distributes production to people with 3D printers at home.

zipcar.

### WHAT IF

#### Customers shared your offering?

Imagine a setup that lets customers access an asset when they need it, without owning it, helping them split the cost among peers. Car sharing and bike sharing schemes follow this principle.



# Brainstorm cards

## YOUR TURNS

› **TURN OVER CARDS AND IDEATE  
ON YOUR HMW CHALLENGE  
[INDIVIDUALLY] - 8'**

› **PRESENT TOP IDEAS AND BUILD  
ON THOSE  
[GROUP] - 7'**





# Opposite thinking

**Whatever you think, think the opposite**



# WHATEVER YOU THINK ISN'T WHAT IT IS

PAUL ARDEN, author of the  
world's bestselling book 

**YOU NEED TO BREAK YOUR  
DEFAULT ASSUMPTIONS  
IF YOU WANT NEW IDEAS**







# Opposite thinking

WHATEVER YOU THINK, THINK THE OPPOSITE





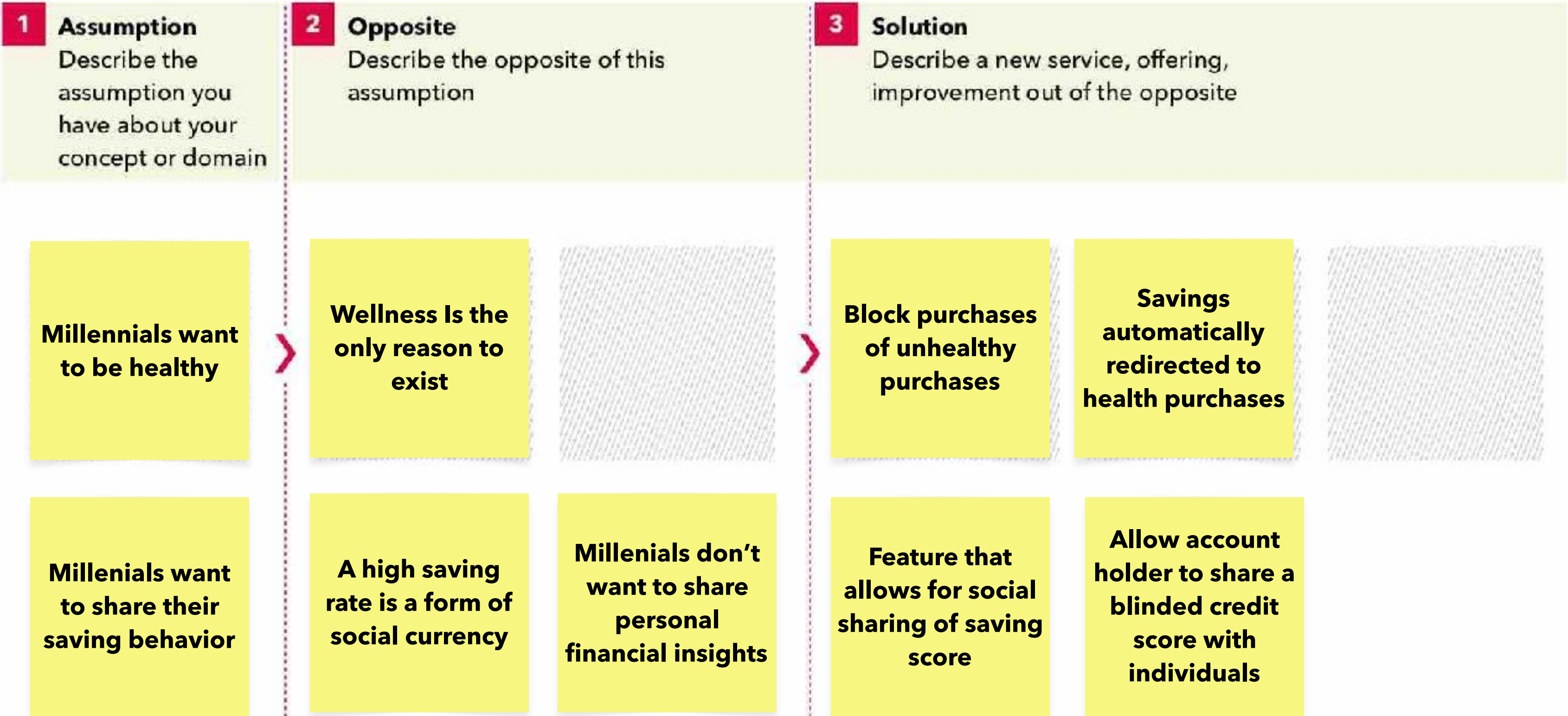
HOW MIGHT WE

**Re-create a savings experience for millennials  
that's more playful and socially engaging?**



# Opposite thinking

Team

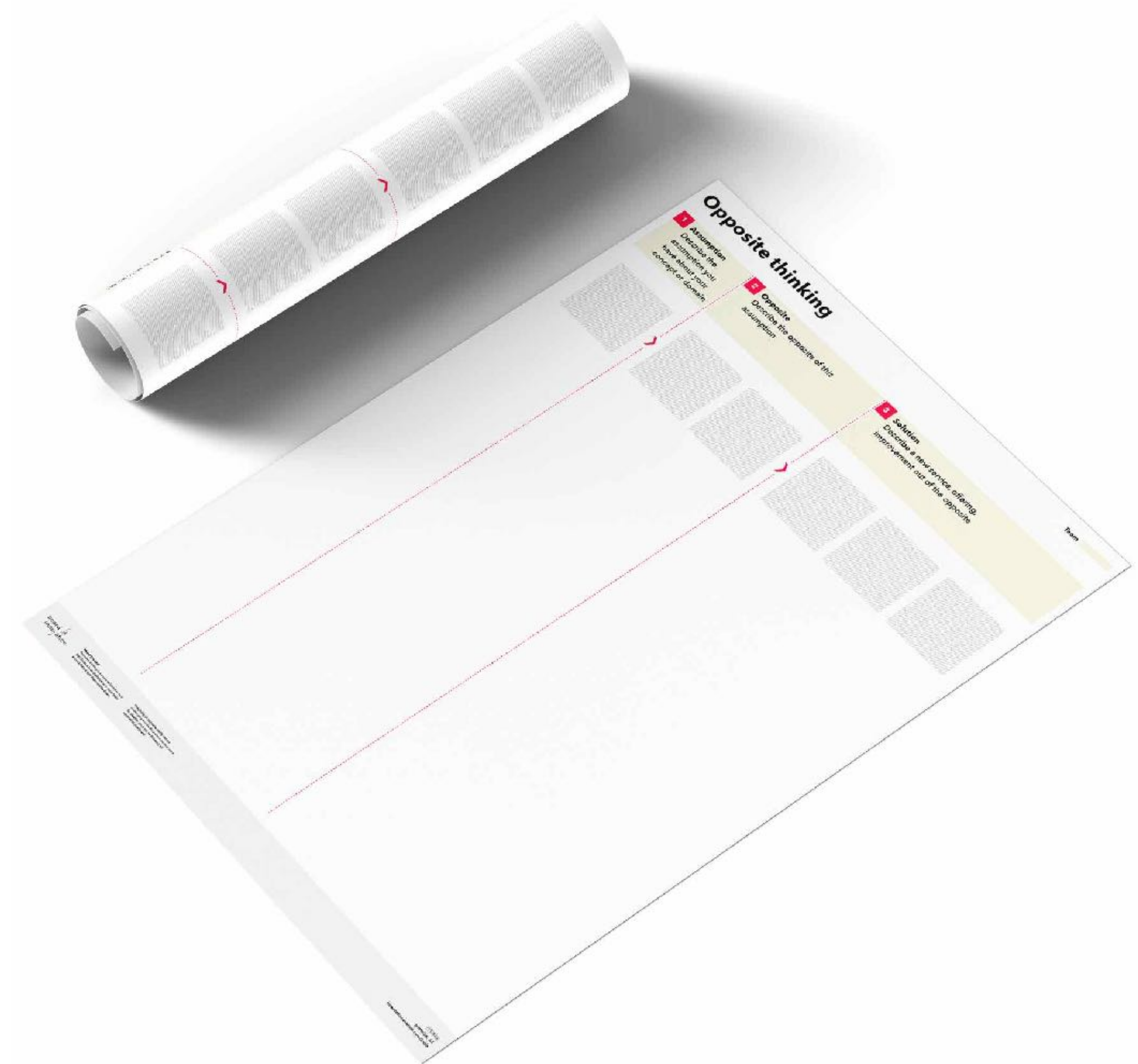




# Opposite thinking

## YOUR TURN!

- › **LIST 4-6 ASSUMPTIONS ABOUT YOUR HMW**  
**[GROUP]**
- › **LIST OPPOSITES AND USE THESE AS TRIGGERS FOR IDEATION**  
**[INDIVIDUALLY]**
- › **DISCUSS AND BUILD UPON OPPOSITES AND IDEAS**  
**[GROUP]**



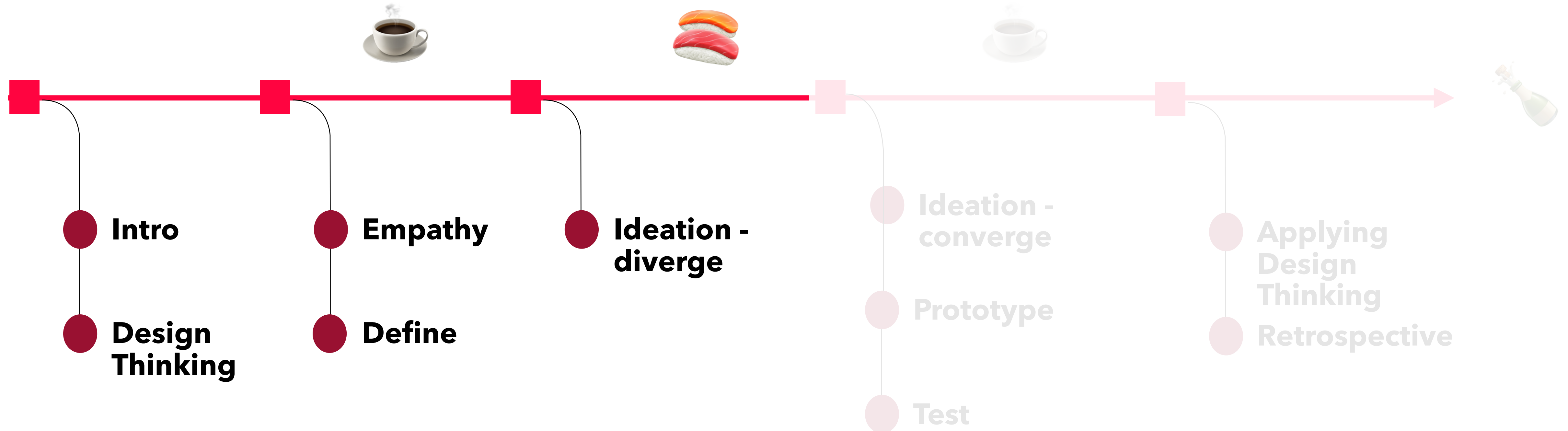




**Lunch time!**  
45 min

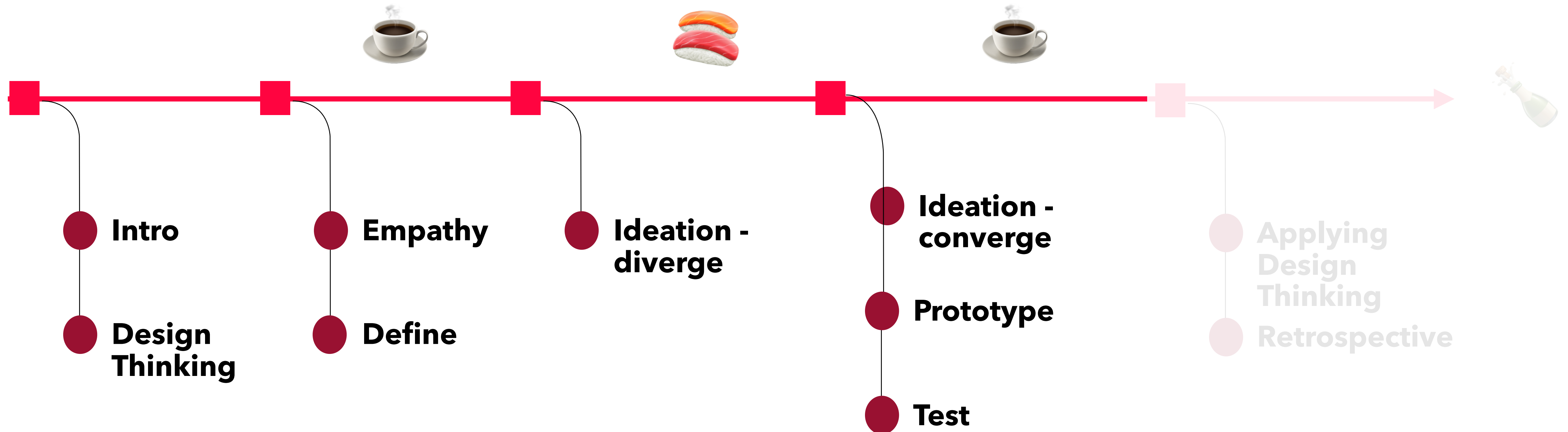


# Our journey today





# Our journey today

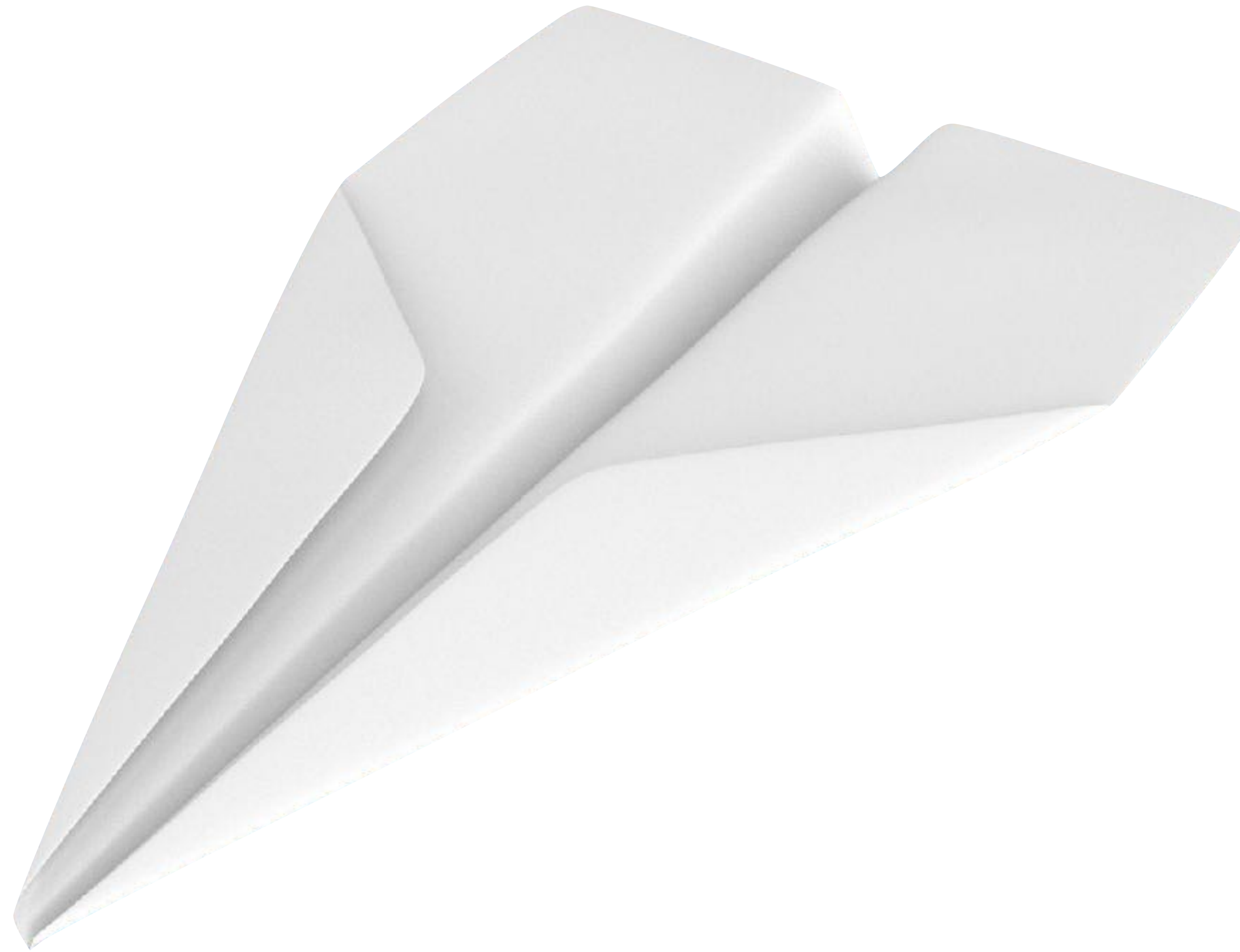






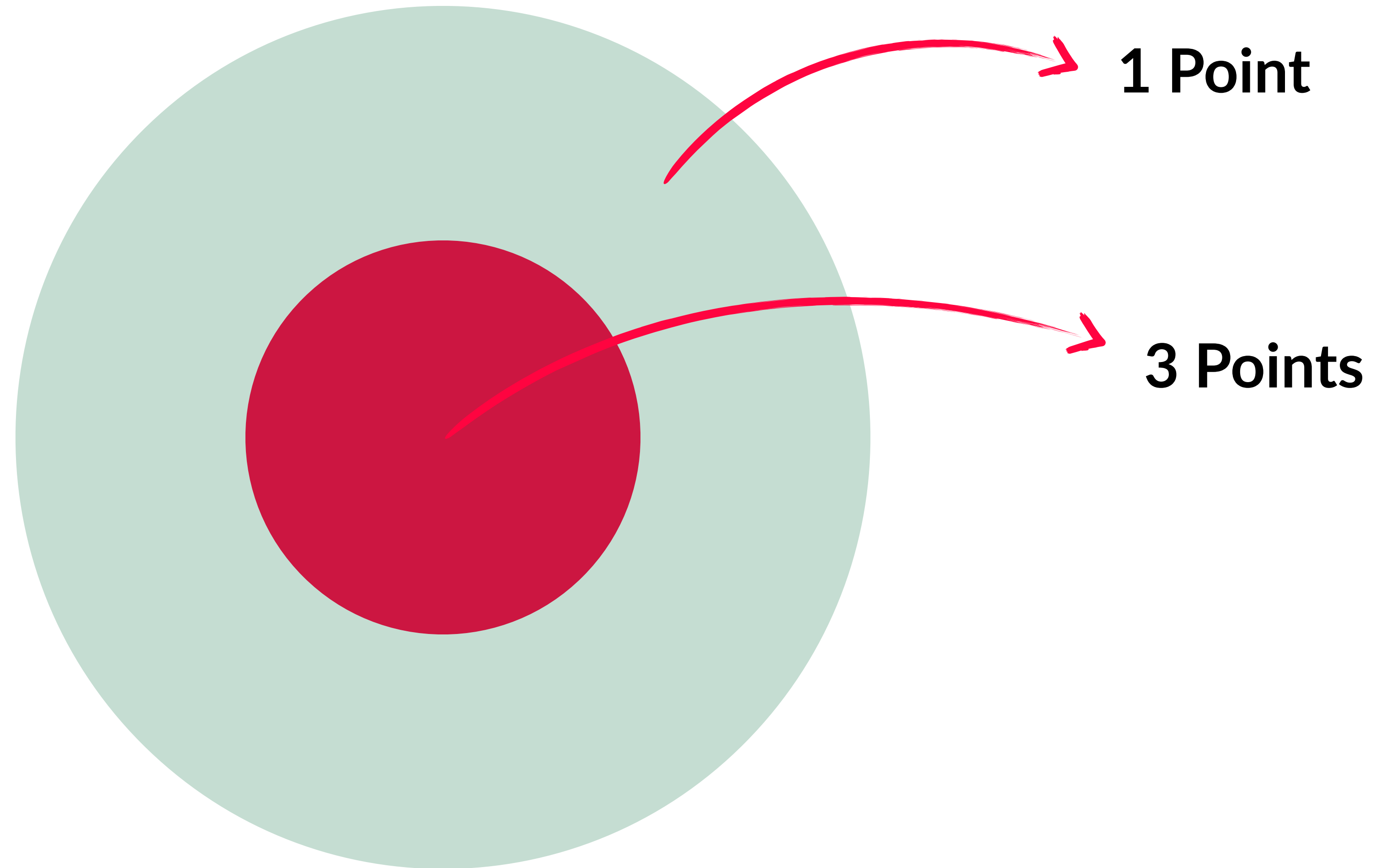


**Fold a paper aeroplane in pairs**  
**Using only 1 hand each!**





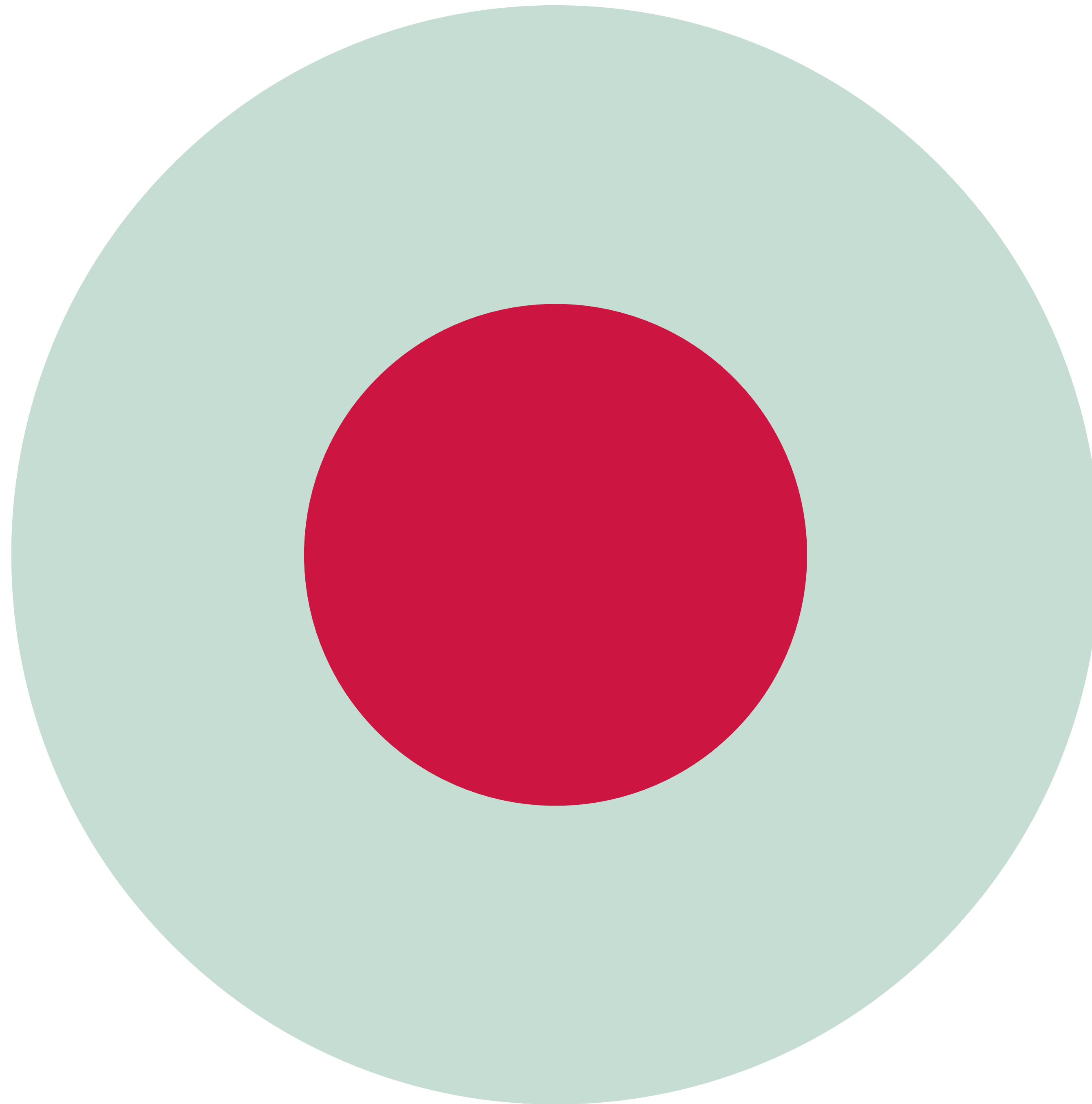
# Top Gun



2 shots a team



# Top Gun





**Build it. Break it.  
Fix it.**

**Prioritize and co-create**



# EXAMPLE

# BUILD IT. BREAK IT. FIX IT.

[illegible]



# Build it, Break it, Fix it

## YOUR TURN!

- **PICK IT**  
[INDIVIDUALLY] - 5'
- **BUILD IT**  
[INDIVIDUALLY] - 3'
- **BREAK IT**  
[INDIVIDUALLY] - 2'
- **FIX IT**  
[INDIVIDUALLY] - 3'
- **PRESENT AND CHOOSE**  
[GROUP] - 10'



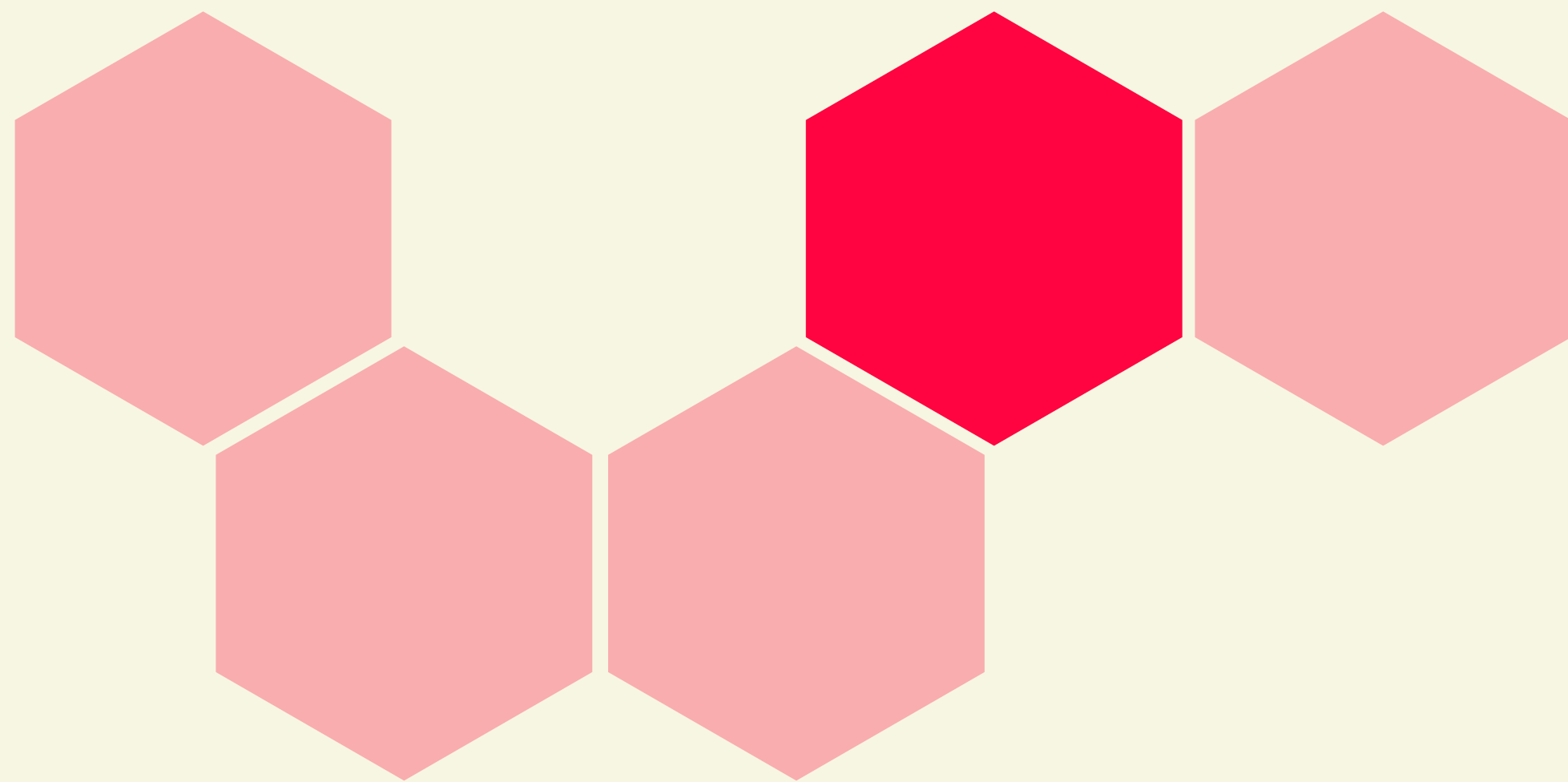


# Dot voting

**Forcing action**



# Prototype





# Validation

**Learning through experimentation**

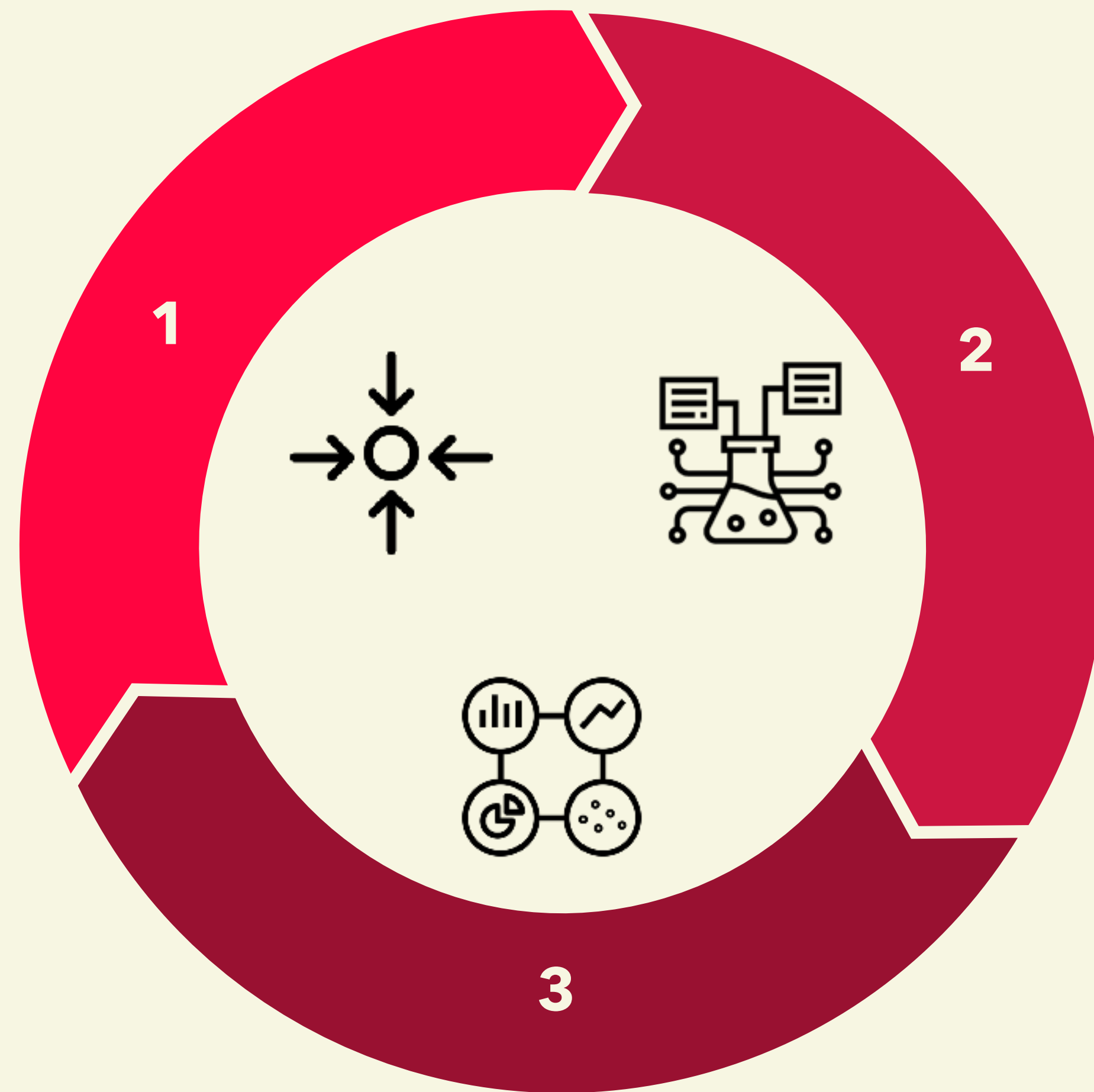


# What is validation?

*validation* • *n*, the process of **gathering evidence and learnings** around business ideas through experimentation and user testing, in order to make **faster, informed, de-risked decisions**.



# What can you expect from validation ?



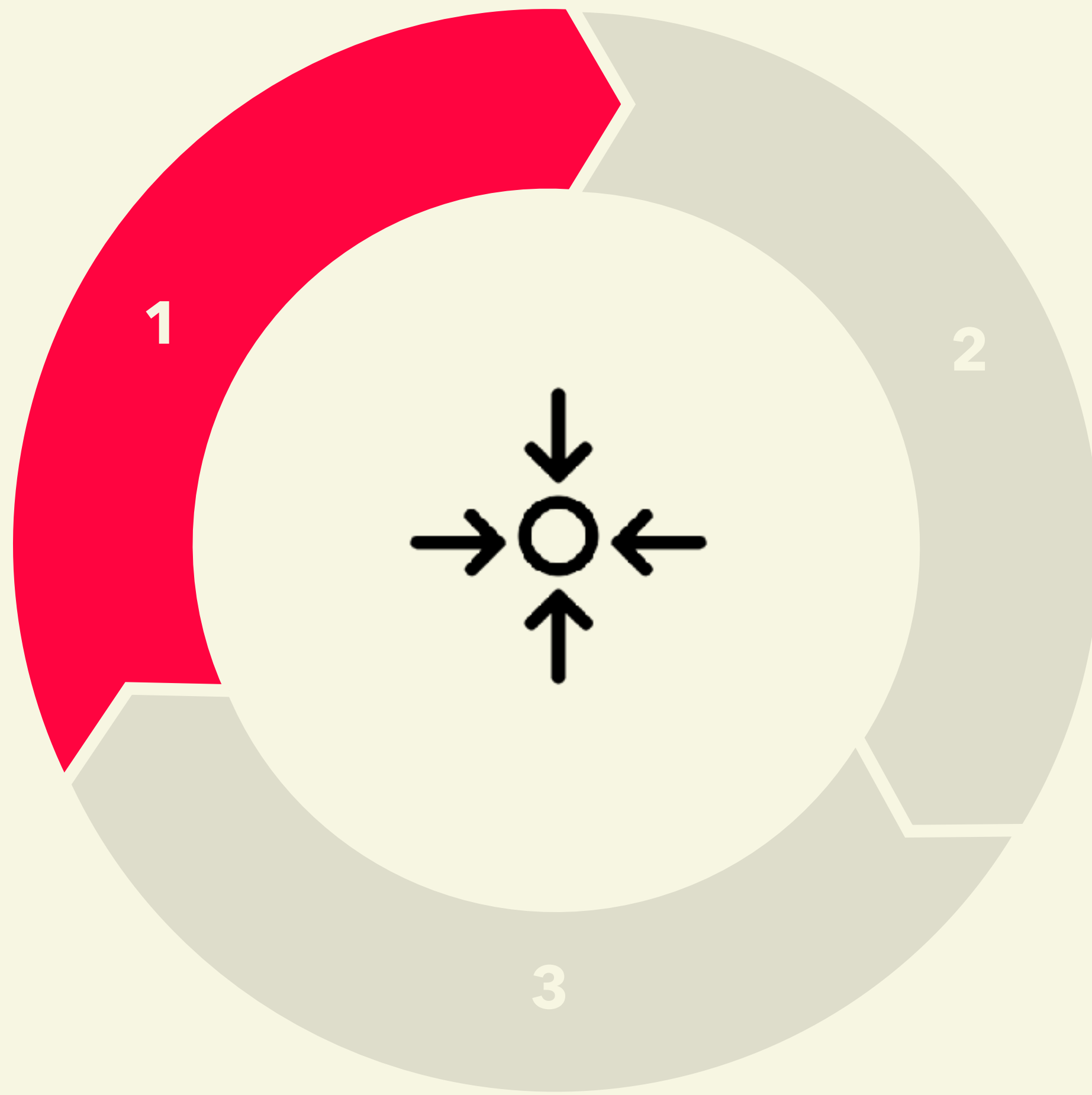
Validated **problem**  
**assumptions**  
**[worth solving]**

Validated **solution**  
**assumptions & hypotheses**  
**[worth building]**

Validated **business**  
**model assumptions**  
**[worth launching]**



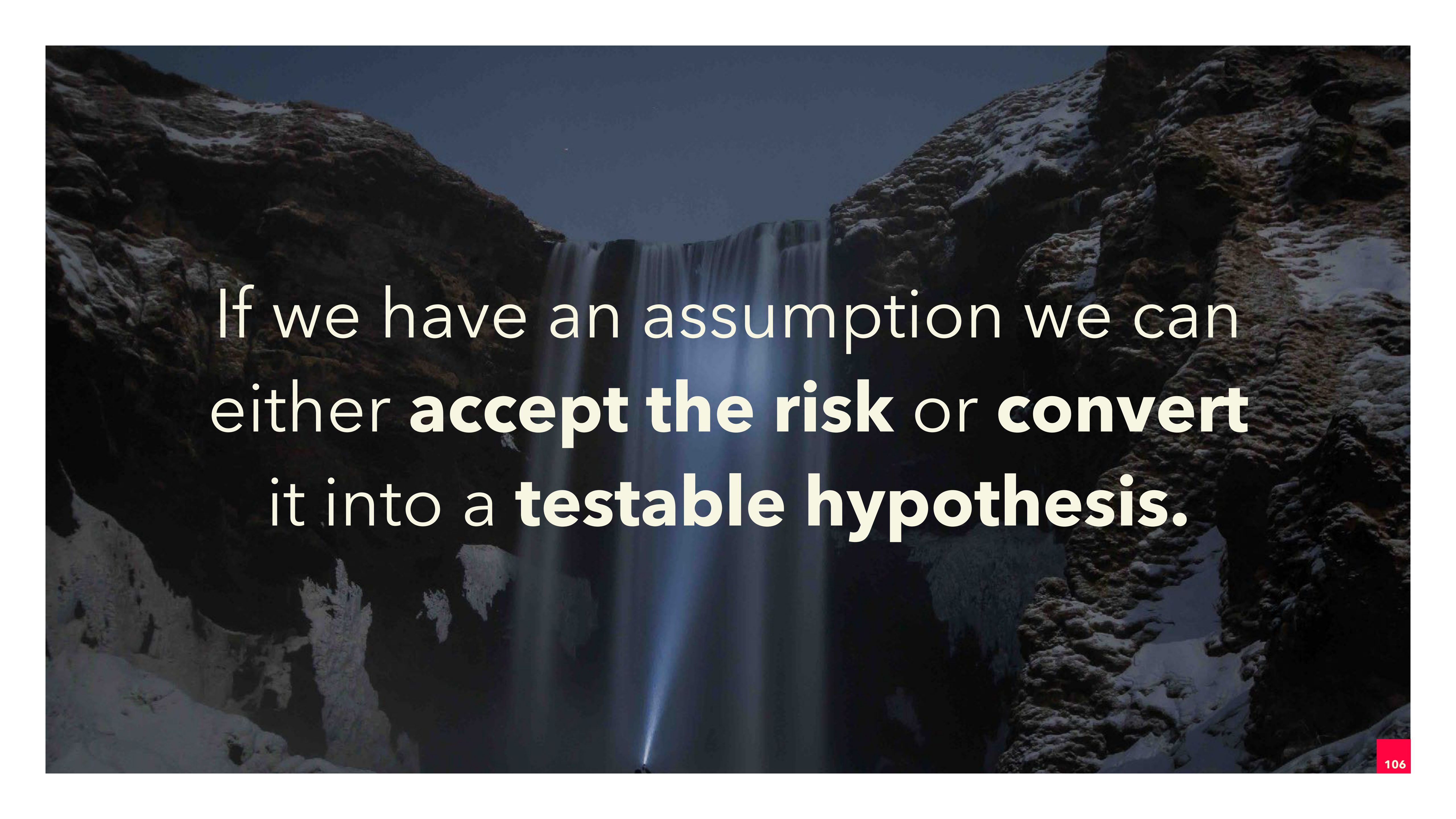
# Validation step by step



## 1. DEFINE YOUR FOCUS: WHAT DO YOU WANT TO LEARN?

**Clearly define your challenge, and at what stage of the innovation funnel you're in, in order to select relevant experiment types to validate various aspects of your business proposition. Then Map out your crucial assumptions to be validated**

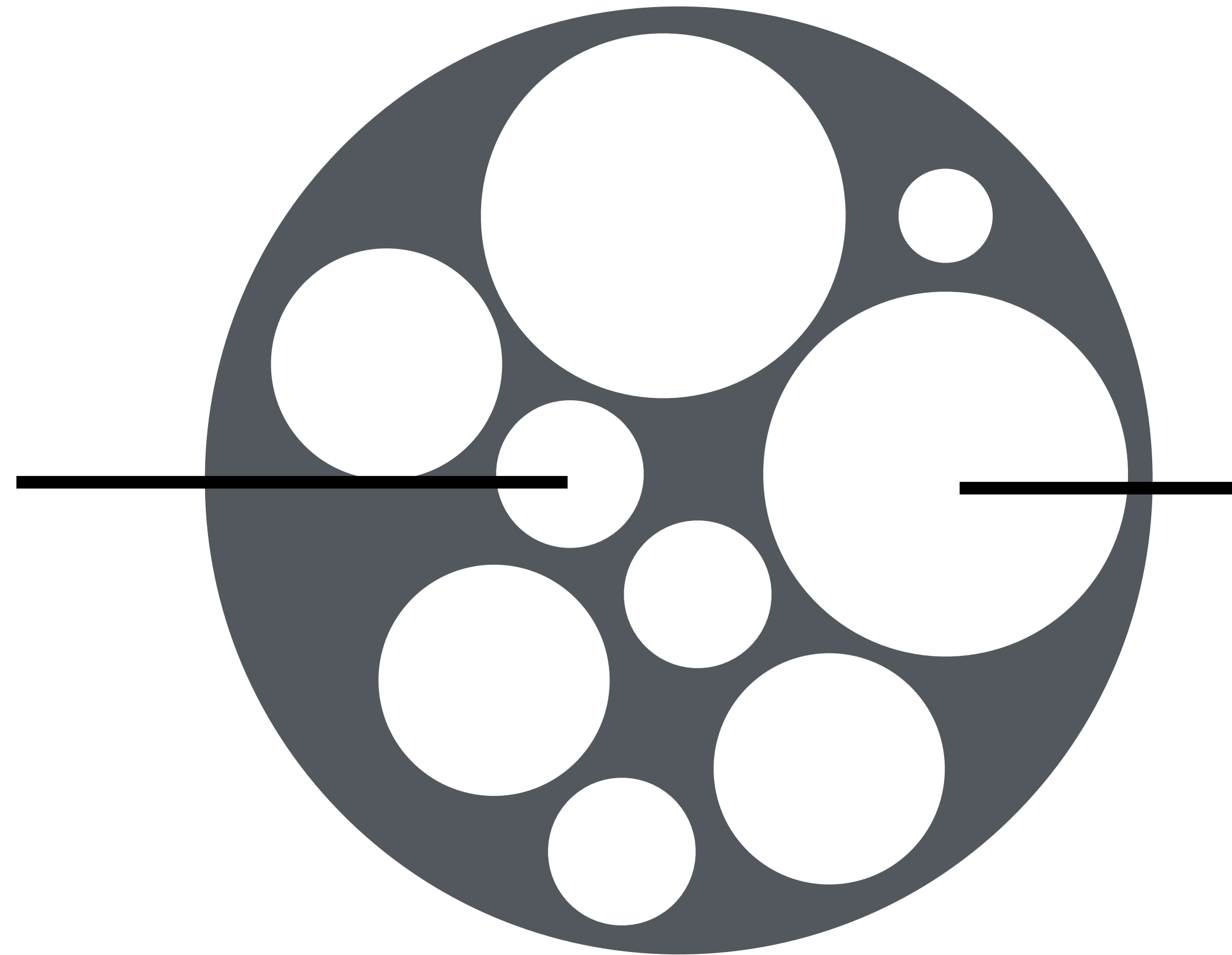




If we have an assumption we can  
either **accept the risk** or **convert**  
it into a **testable hypothesis**.



**Some are easy  
to validate**

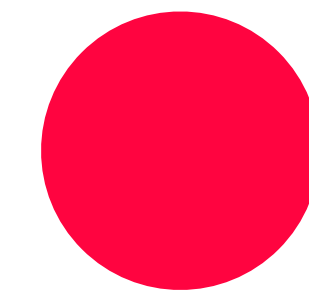
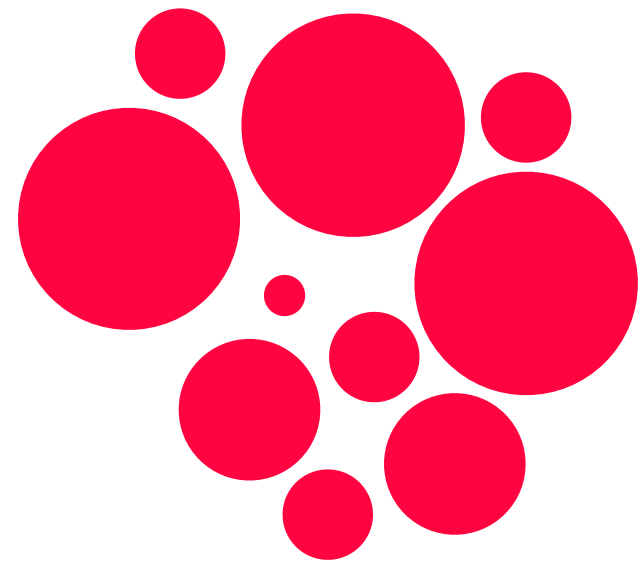
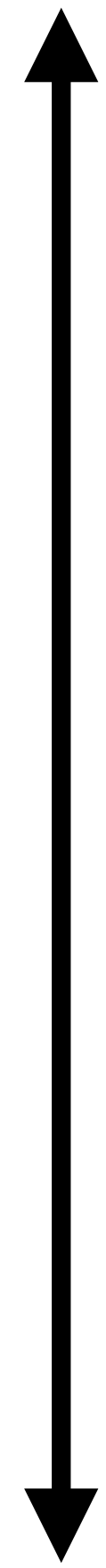


**Some are  
hard to validate**

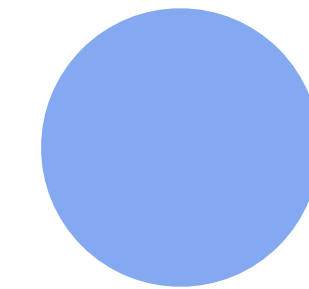


# De-risking by testing assumptions

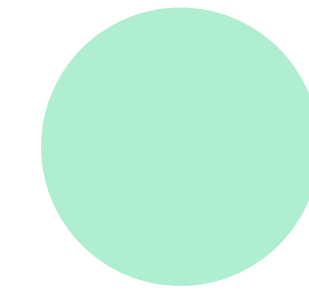
Critical assumptions, very important!



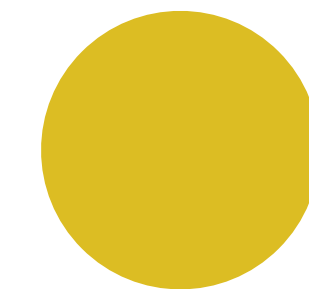
**Desirability: Client/user focus**



**Viability: Business Model**



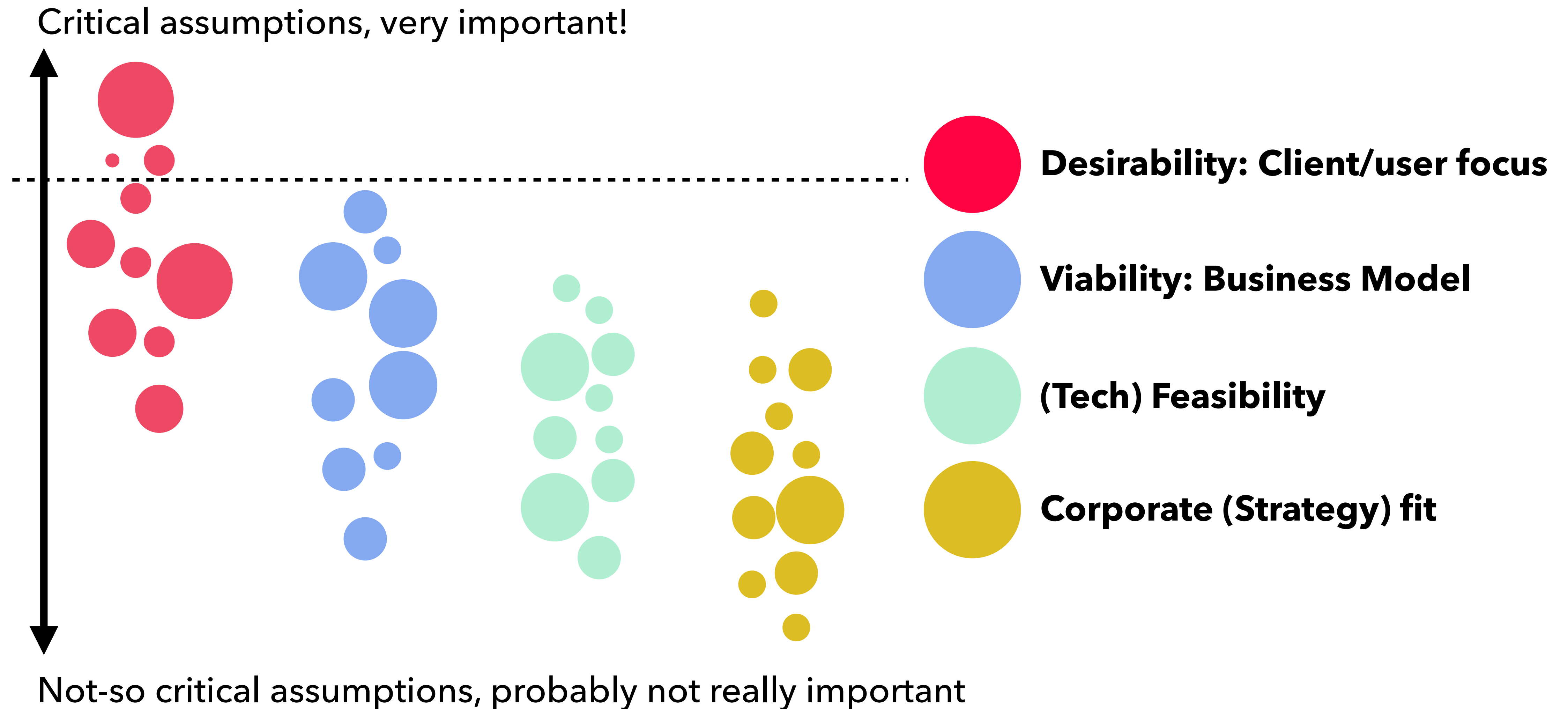
**(Tech) Feasibility**



**Corporate (Strategy) fit**

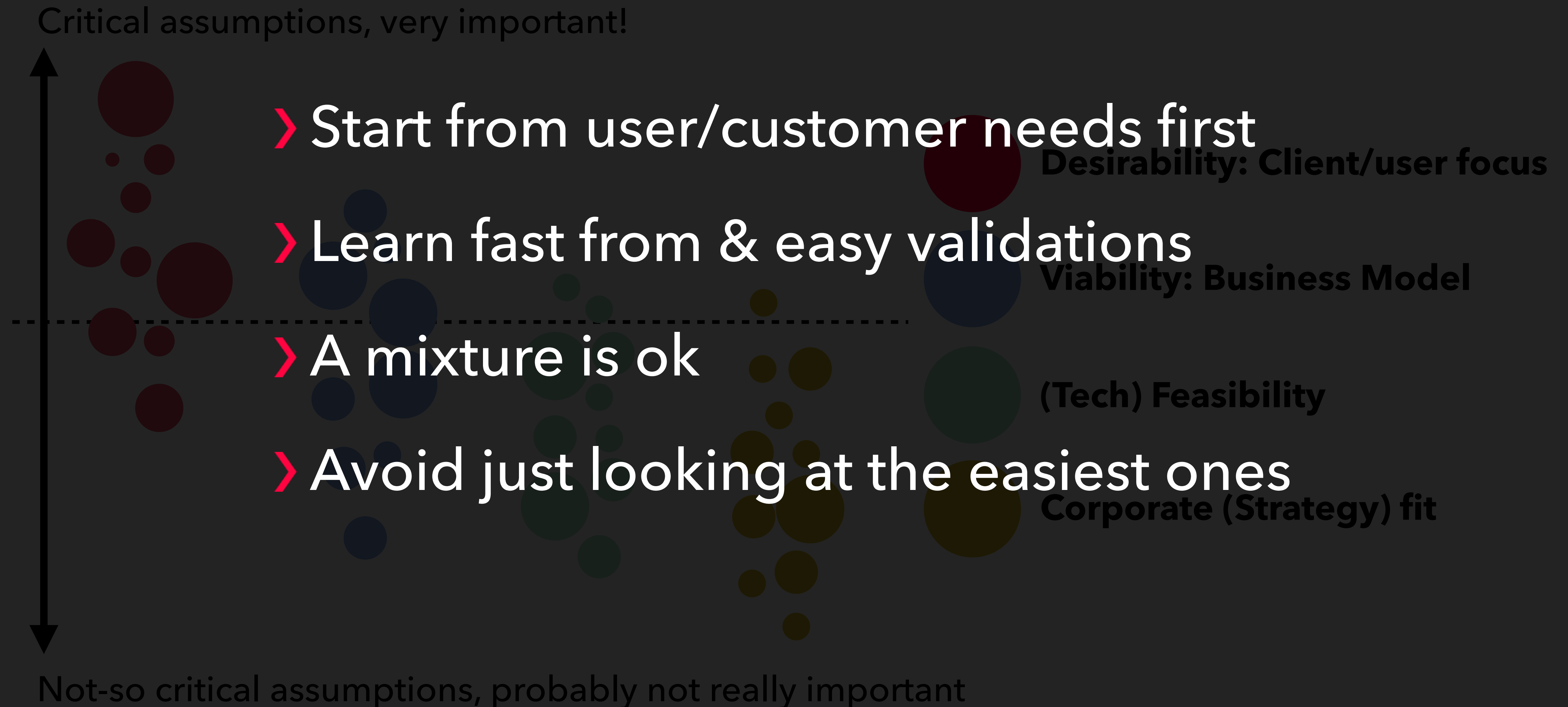
Not-so critical assumptions, probably not really important

# De-risking by testing assumptions



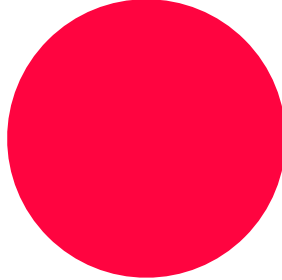
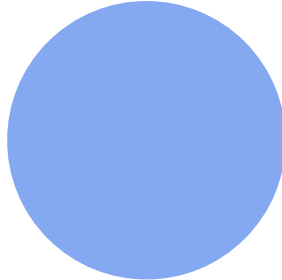
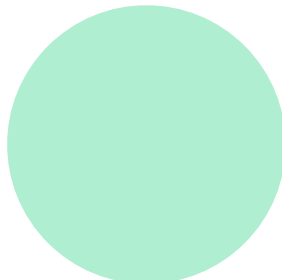
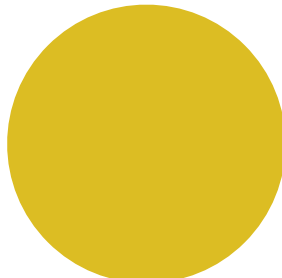


# De-risking by testing assumptions



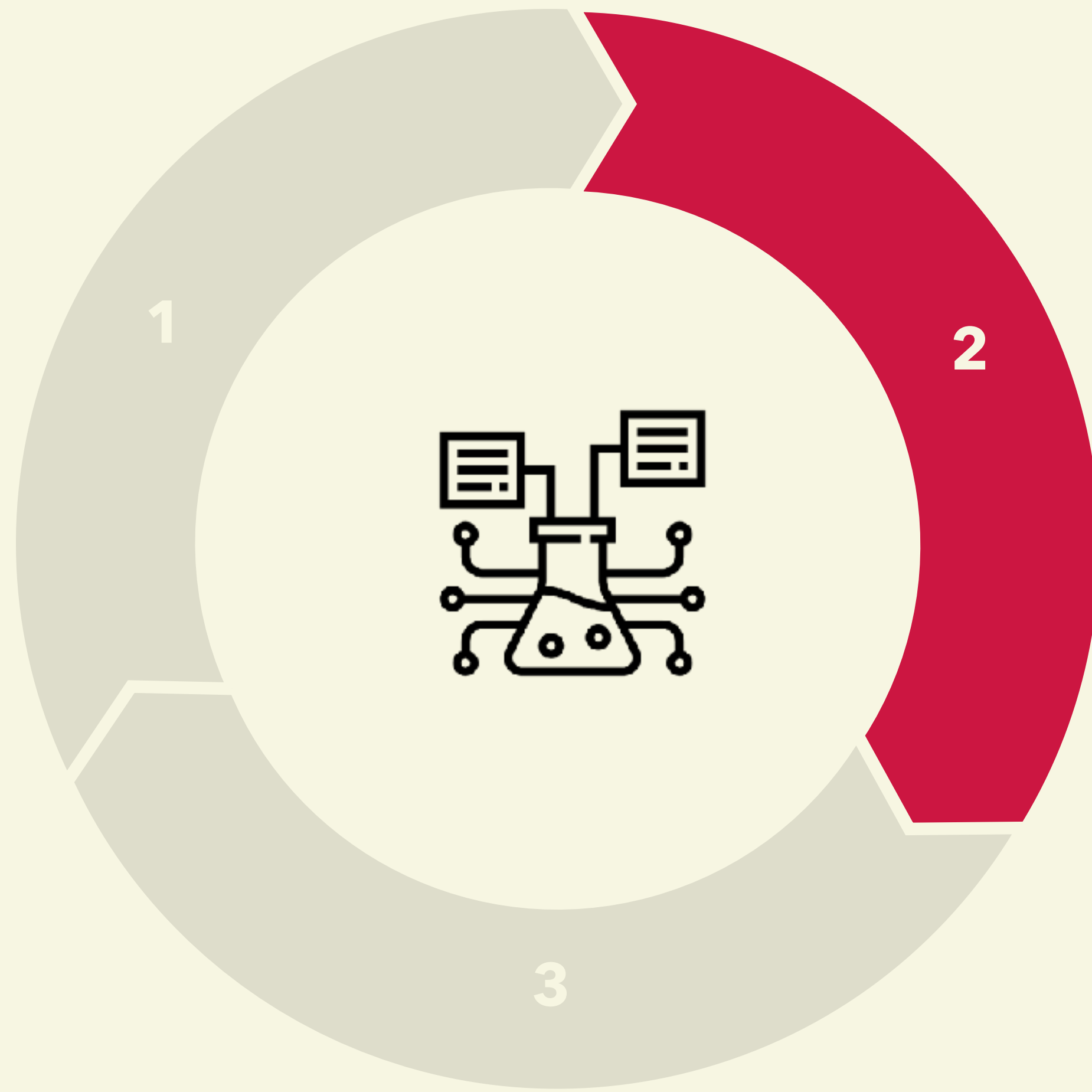
# What are your key assumptions?

Take a few minutes to individually brainstorm

-  **Desirability: Client/user focus**
-  **Viability: Business Model**
-  **(Tech) Feasibility**
-  **Corporate (Strategy) fit**



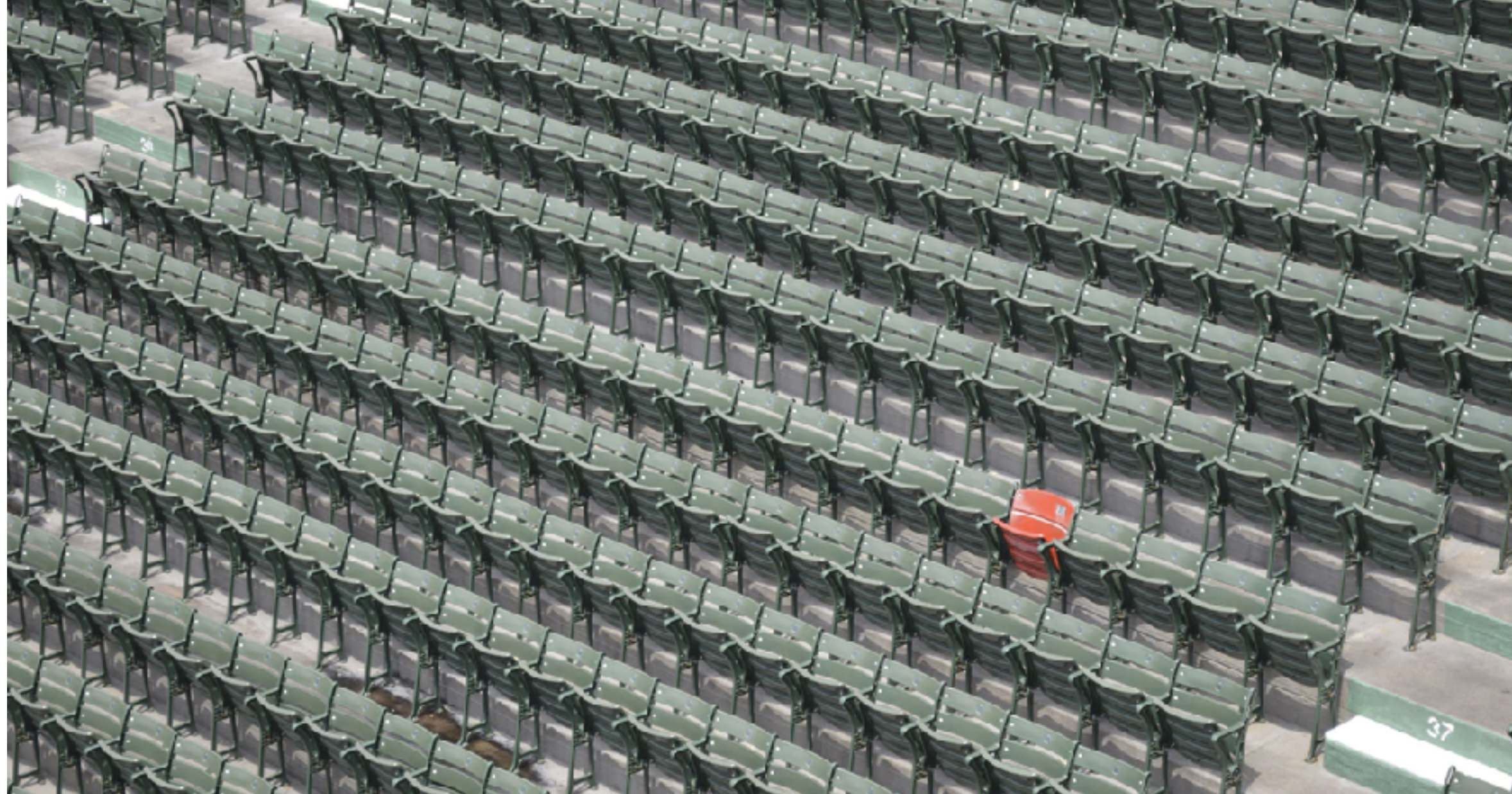
# Validation step by step



## **2. CHOOSE AND DESIGN THE RELEVANT EXPERIMENTS TO TEST YOUR ASSUMPTIONS/ HYPOTHESES**

Once you have ranked your assumptions and defined key hypotheses you want to test, you can select the most suitable experiment(s) with the right metrics to test and validate (or reject) your hypotheses.





## Assumption

An assumption is a statement that we believe to be true, without any evidence to back it up.



## Hypothesis

A hypothesis is an educated guess for what we expect to happen in a given experiment.

**IT'S A PREDICTION WE CAN TEST.**



DOES IT TEST  
YOUR ASSUMP-  
TION?

hands-on  
test  
+  
identification  
no intro  
on issue  
no explana-  
tion  
on test

MAKE  
SURE  
IT'S FREE!

TO EARLY  
EMAIL



## QUESTION

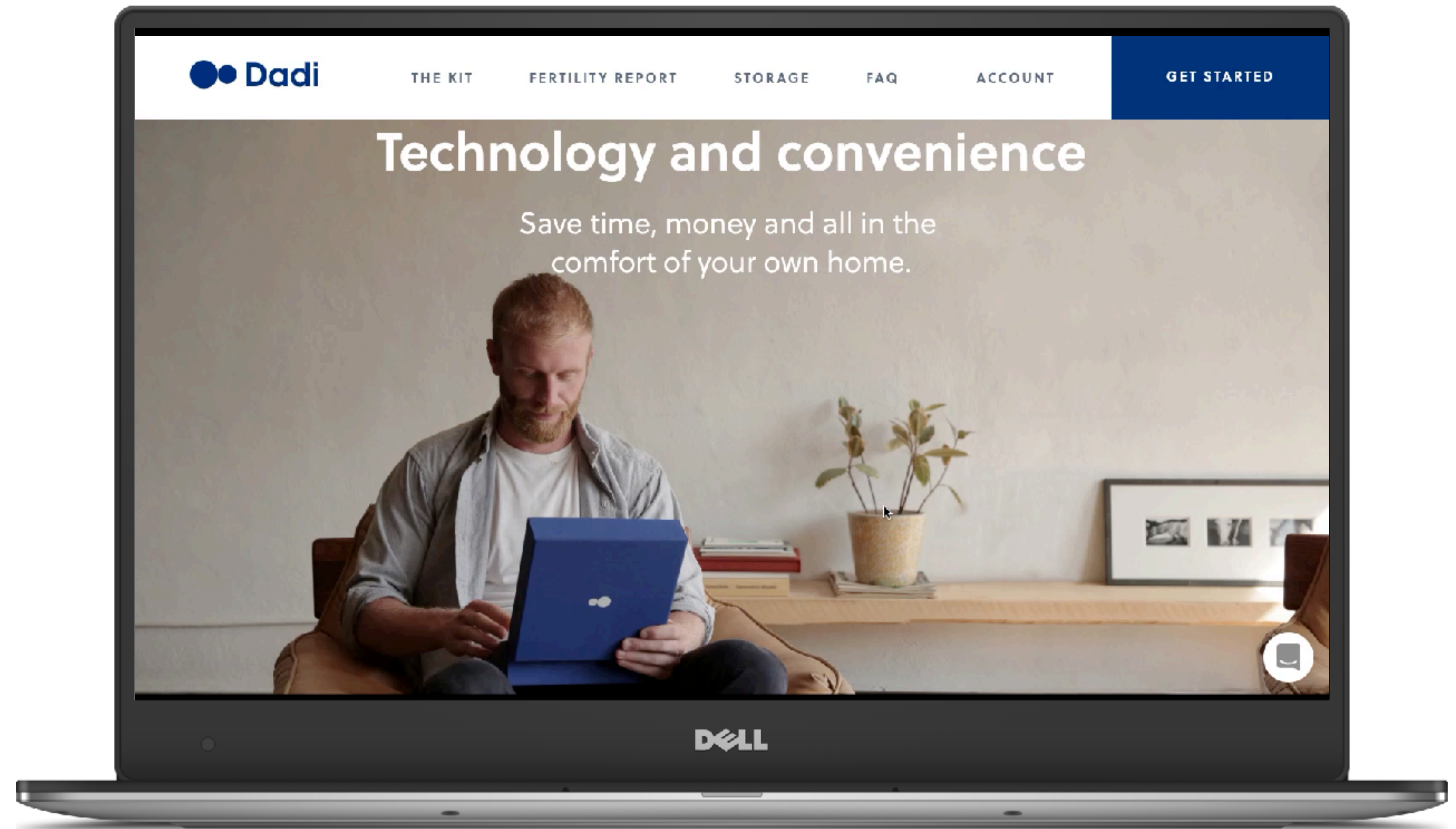
Do people worry about their sperm being sent to an offsite lab via mail?

## ASSUMPTION

Men **will trust** our kit to preserve and protect their deposit throughout the shipping process.

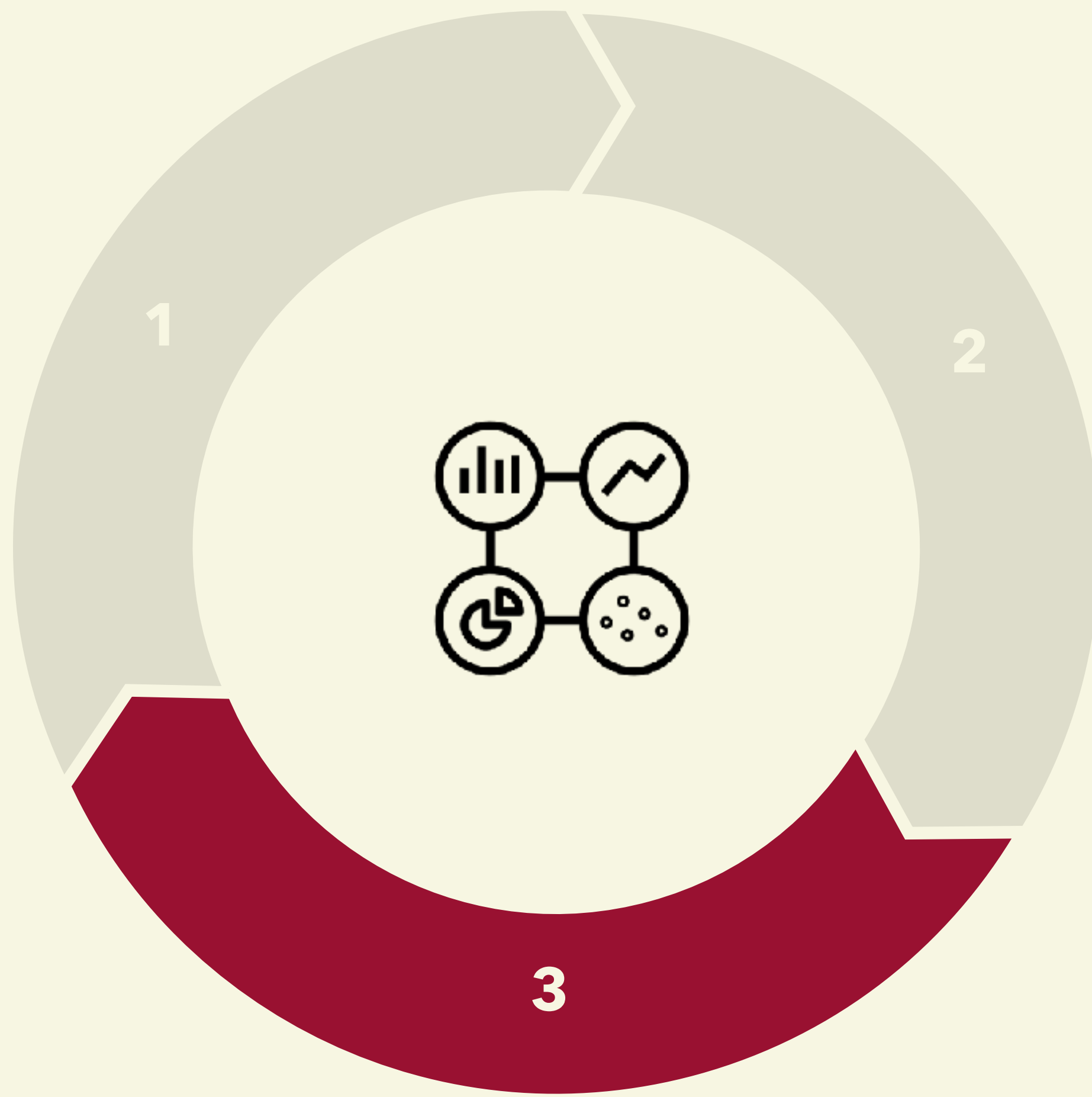
## HYPOTHESIS

40% of men who view our page in a 2 week period will click to **get started**!





# Validation step by step



## **3. INTERPRETING RESULTS AND MAKING (TOUGH) EVIDENCE BASED DECISIONS.**

**Deciding whether to pivot, stop or persevere or iterate based on your learnings is a crucial moment and often the toughest part - what is the evidence telling me? What do I do next? Is this enough?**





**What is your decision?**



# Killed by Google

Search

all (172) - apps (15) - services (143) - hardware (14)



July  
2019

## Missing something?

We rely on contributors to proofread, check accuracy, and keep this list up to date. The Google Graveyard is ad-free and open source. Feel free to get involved on [GitHub](#). Follow us on [Twitter](#) to get instant updates.



March  
2020

## Fabric

Bites the big one in 8 months, Fabric was a platform that helped mobile teams build better apps, understand their users, and grow their business. It was over 5 years old.



December  
2019

## Hangouts on Air

Another one bites the dust in 5 months, Hangouts on Air allowed users to host a multi-user video call while recording and streaming the call on YouTube. It was over 8 years old.



December  
2019

## Google Fusion Tables

Expires in 4 months, Google Fusion Tables was a web service for data management that provided a means for visualizing data in different charts, maps, and graphs. It was over 10 years old.



October  
2019

## Google Hangouts

Bites the big one in 3 months, Google Hangouts was a communication platform which included messages, video chat, and VOIP features. Execution date is tentative. It was over 6 years old.



August  
2019

## Works with Nest API

Sentenced to death in about 1 month, Works with Nest was an API that allowed external services to access and control Nest devices. This enabled the devices to be used with third-party home automation platforms and devices. It was about 5 years old.



August  
2019

## Google Trips

"Off with their heads!" in 5 days, Google Trips was a mobile app that allowed users to plan for upcoming travel by facilitating



2015 - 2019

## Google Jump

Killed about 1 month ago, Google Jump was a cloud-based VR media solution that enabled 3D-360 media production by



2018 - 2019

## Pixel Slate

Killed about 1 month ago, Pixel Slate was a line of tablet devices that ran on the Chrome OS operating system. It was 8

2000 - 2000

an experimental, non-branded search engine that Google used to be able to play around with new search technologies, concepts and interfaces. It was about 2 years old.

2000 - 2000

Creator was a website creation and hosting service that allowed users to build basic websites with no HTML knowledge. It was about 2 years old.

2000 - 2000

Phone was an add-on to send links and other information from Firefox to their phone by text message. It was almost 2 years old.



2006 - 2008

### Google Browser Sync

Killed about 11 years ago, Google Browser Sync was a Firefox extension that synced information like passwords and browsing history. It was about 2 years old.



2002 - 2008

### Hello

Killed about 11 years ago, Hello was a service by Picasa that let users share pictures "like you're sitting side-by-side." It was almost 6 years old.



2005 - 2008

### Google Web Accelerator

Killed over 11 years ago, Google Web Accelerator was a client-side software that increased the load speed of web pages. It was over 2 years old.



2000 - 2007

### Zeitgeist

Killed over 11 years ago, Google Zeitgeist was a weekly, monthly, and yearly snapshot in time of what people were searching for on Google all over the world. It was almost 7 years old.



2003 - 2007

### Google Click-to-Call

Killed over 11 years ago, Google Click-to-Call allowed a user to speak directly over the phone to businesses found in search results. It was almost 4 years old.



2006 - 2007

### Google Video Player

Killed almost 12 years ago, The Google Video Player plays back files in Google's own Google Video File (.gvi) media format and supported playlists in 'Google Video Pointer' (.gvp) format. It was 12 months old.



2006 - 2007

### Google Video Marketplace

Killed almost 12 years ago, Google Video Marketplace was a service that included a store where videos could be bought and rented. It was over 1 year old.



2002 - 2006

### Google Answers

Killed over 12 years ago, Google Answers was an online knowledge market. It was over 4 years old.



2005 - 2006

### Writely

Killed almost 13 years ago, Writely was a Web-based word processor. It was about 1 year old.



2001 - 2006

### Google Public Service Search

Killed almost 13 years ago, Google Public Service Search provided governmental



2003 - 2006


### Google Deskbar

Killed about 13 years ago, Google Deskbar was a small inset window on the Windows

search results without ads. It was over 4

searches without leaving the desktop. It





**“Life is too short to  
build something  
nobody wants”**

**- Ash Maurya, Running Lean**

# Prototyping

**Building boundary objects**





**We don't need  
to build Rome**



A photograph of a Parisian street scene. On the left, a large, golden, abstract sculpture sits on a pedestal. The background is filled with tall, ornate buildings with many windows and balconies. The sky is blue with some clouds. The text "All you need is a facade..." is overlaid in the center in a bold, red font.

**All you need is a facade...**



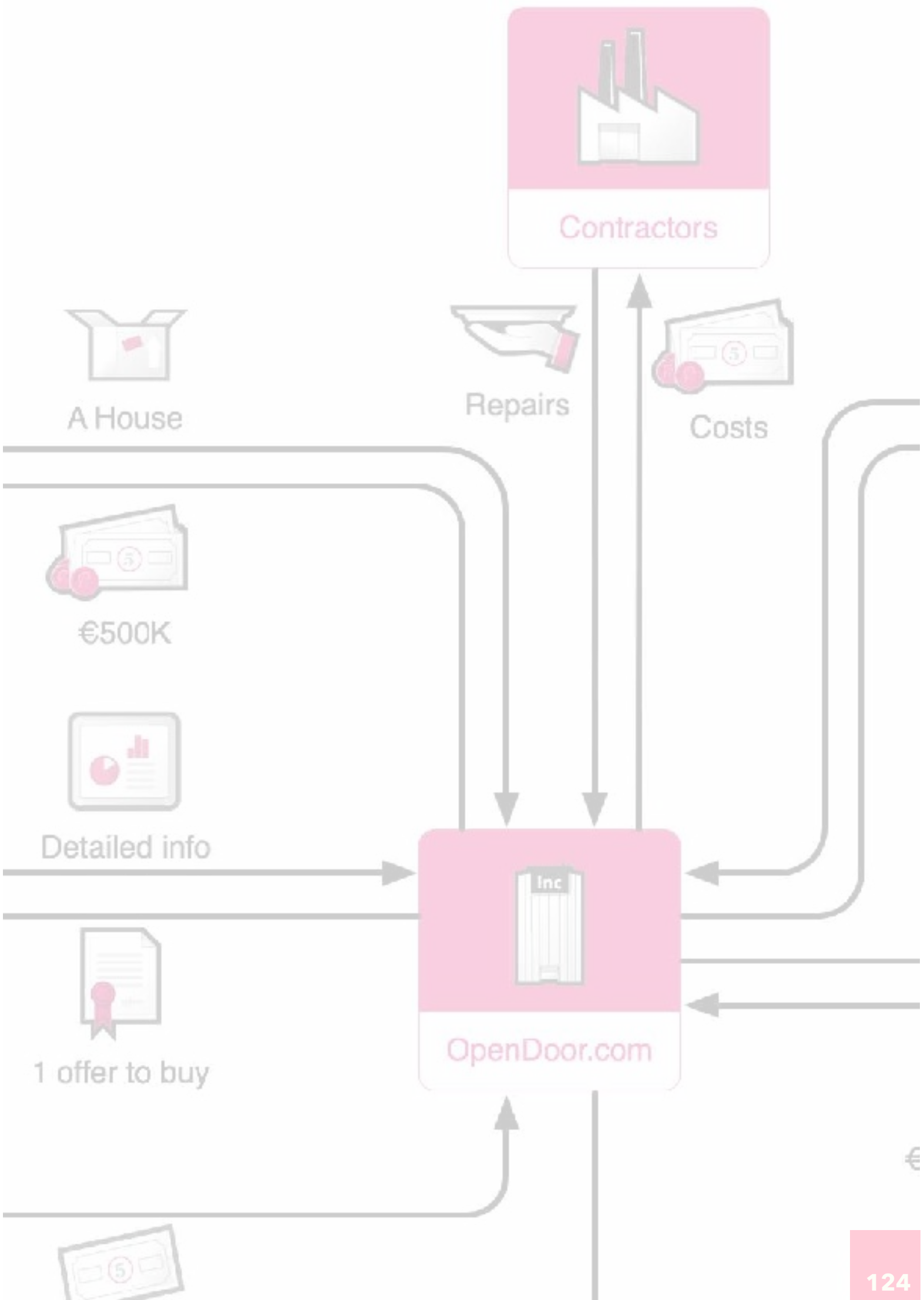
# SERVICE WALKTHROUGH



# WIREFRAMING



# BM VISUALIZATION







**Service Walkthrough**





# Desktop Walkthrough



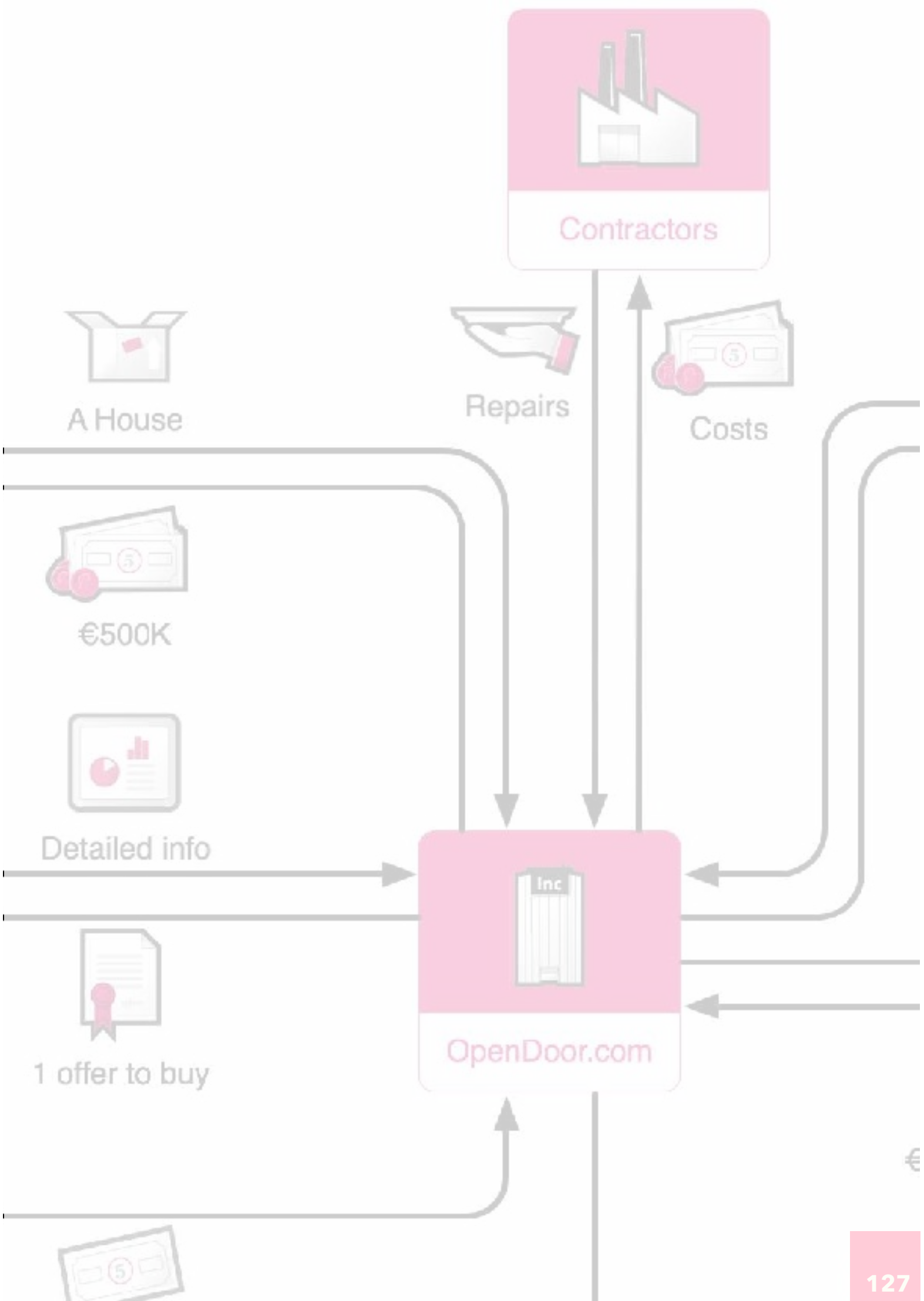
# SERVICE WALKTHROUGH



# WIREFRAMING

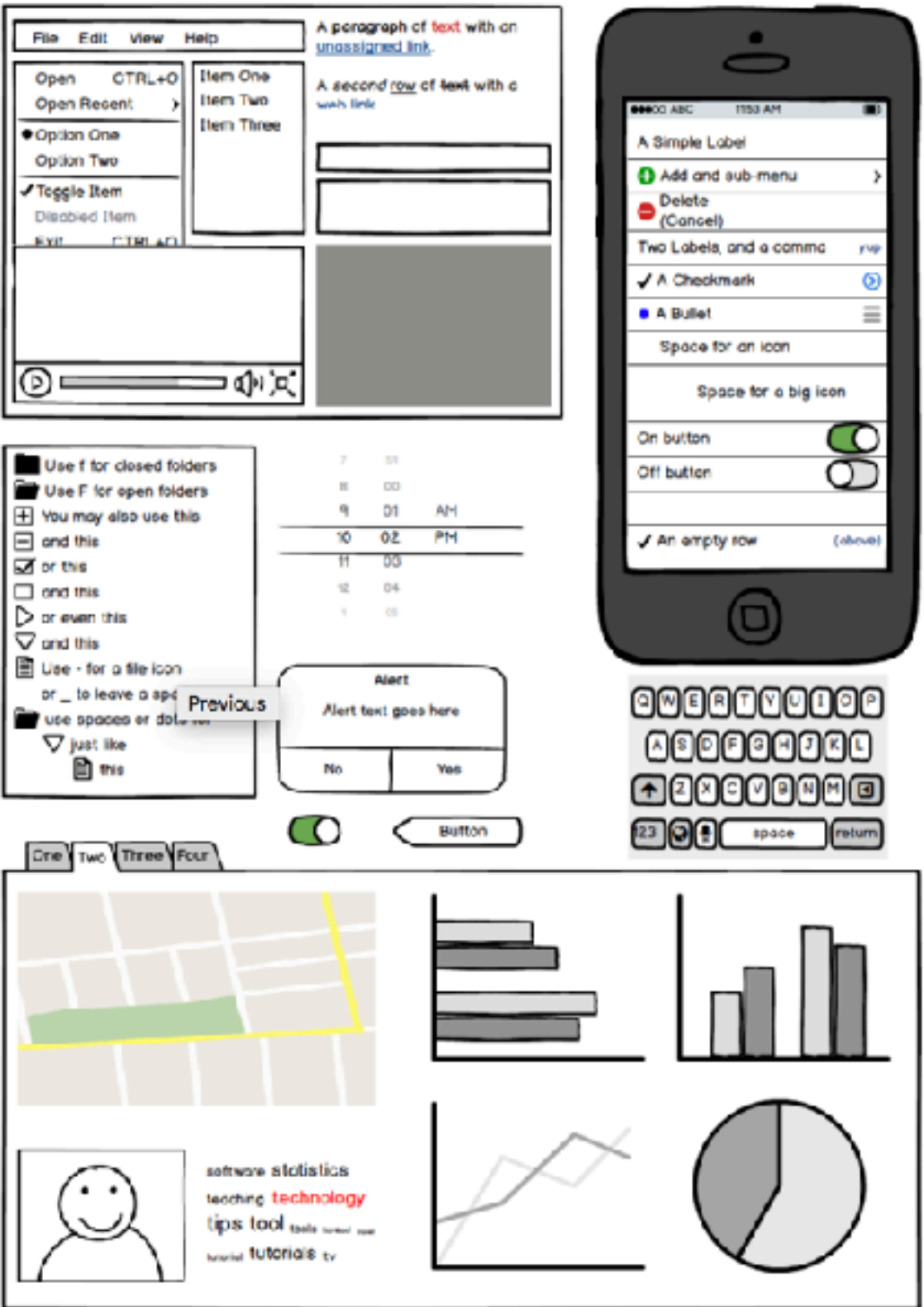
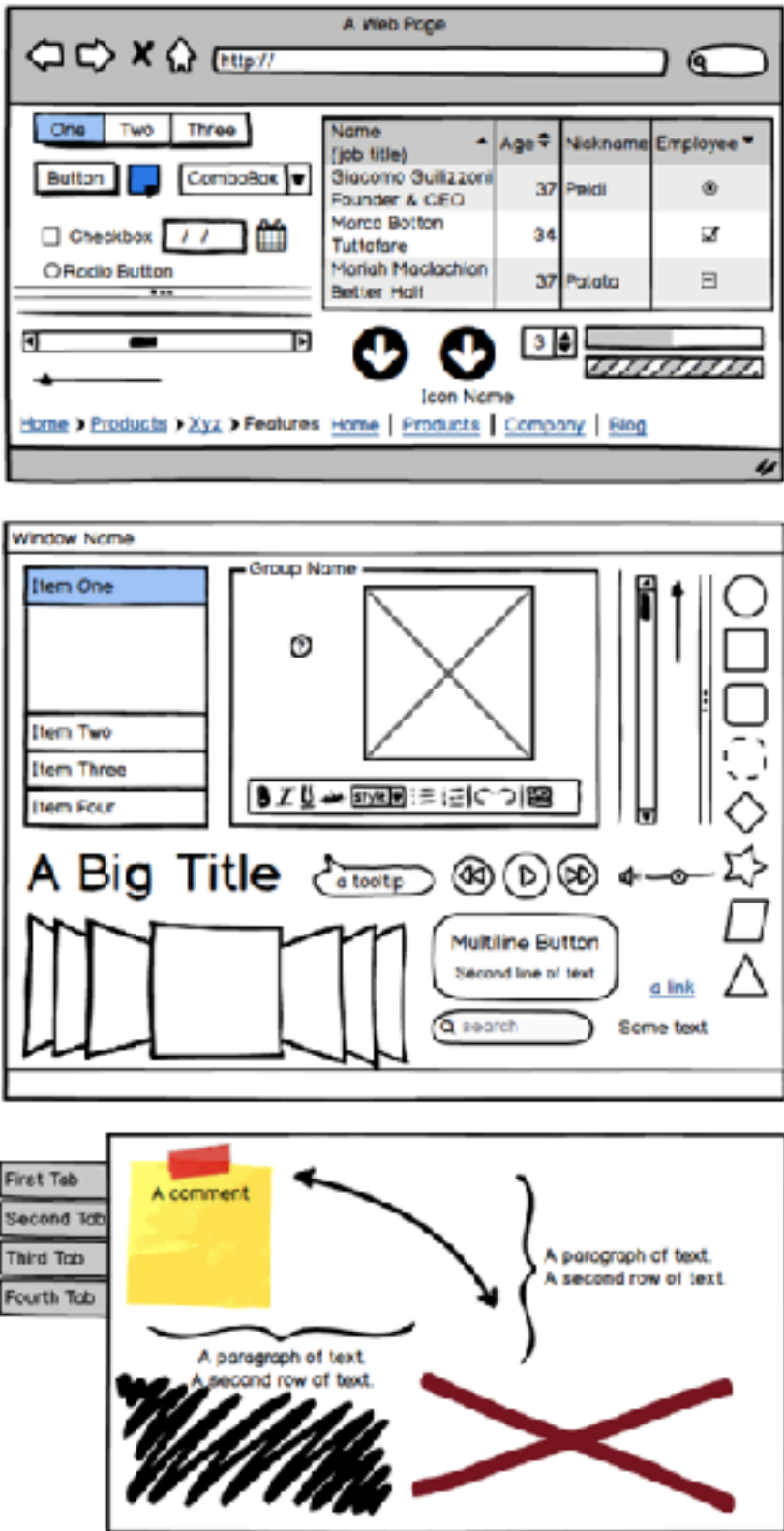


# BM VISUALIZATION





# Easy Wireframing









# Wireframe





# Meet POP



Turn any sketch or image into an interactive prototype

Quickly snap your sketches and then together to simulate your app idea.

1. SKETCH APP SCREENS
2. DOWNLOAD POP ON YOUR PHONE
3. TURN YOUR INTERNET OFF
4. TAKE PICTURES OF YOUR SKETCHES
5. CREATE APP FLOW BY ADDING LINKS
6. HAVE COLLEAGUES PLAY AROUND WITH IT





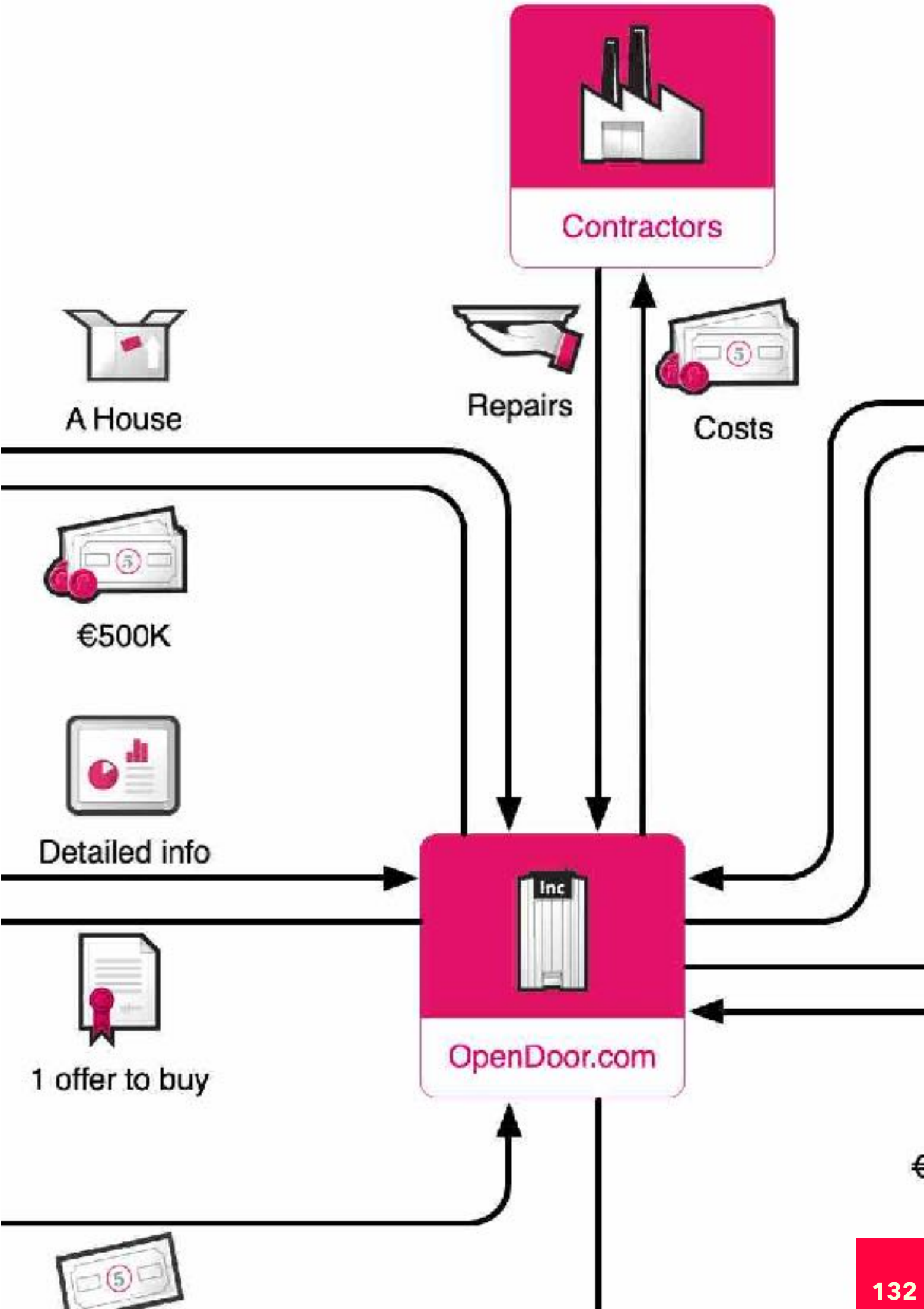
# SERVICE WALKTHROUGH



# WIREFRAMING



# BM VISUALIZATION





# Business model kit





# Example: opendoor.com

## Consider it sold.

Sell your home to Opendoor and skip the hassle of repairs, showings and months of uncertainty.

Enter your home address

Get your offer today

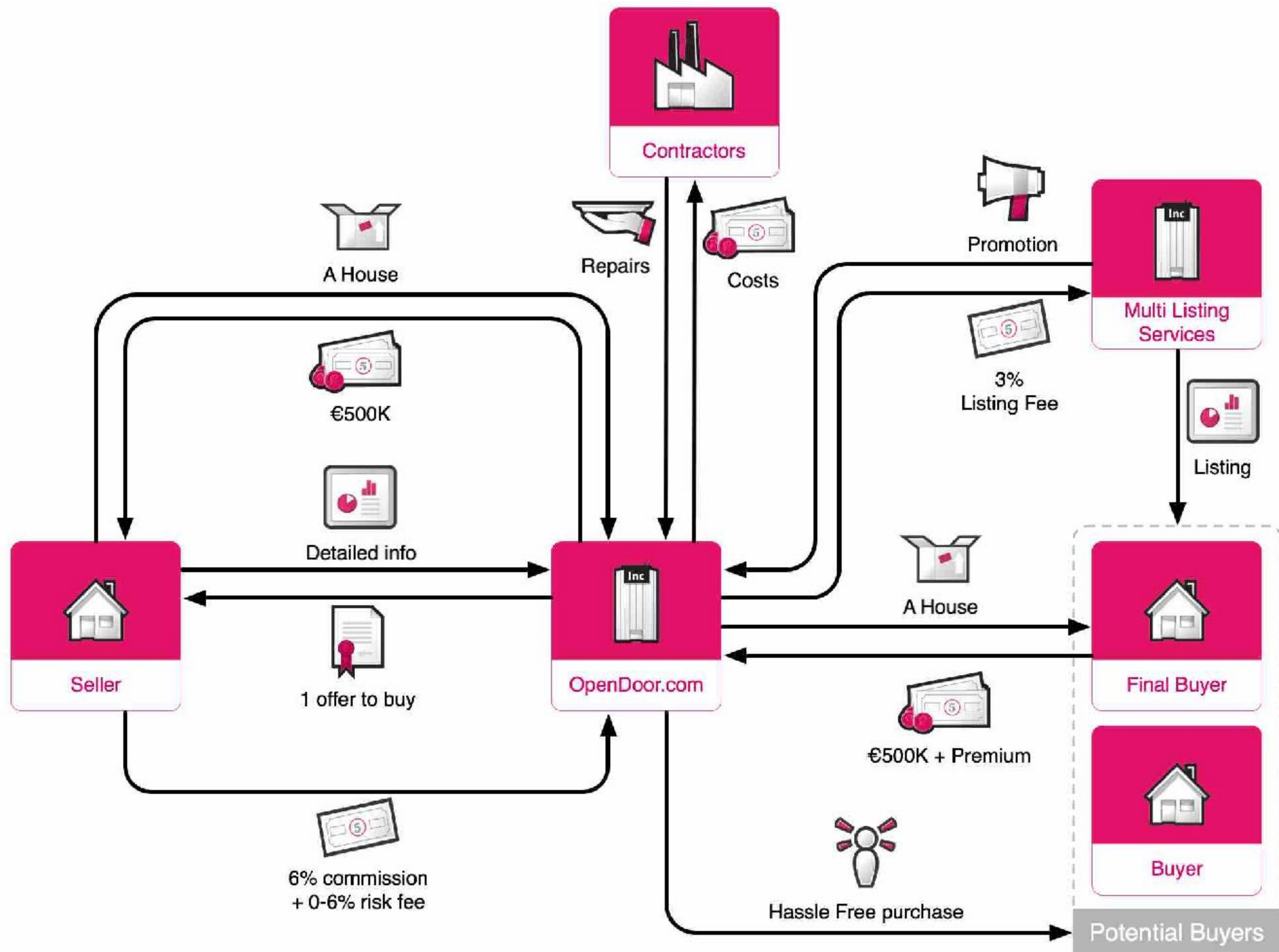
**4,670**

happy customers

“Opendoor gave us market value for our home and all the flexibility and certainty we needed.

[Clint and Shawna from Phoenix, Arizona](#)







# **Your turn!**

**Validation**



A man with a beard and blue eyes, wearing a dark green sweater, is focused on building a complex LEGO Technic model. He is holding a small grey and red piece in his right hand, about to attach it to the main structure. The model is built on a wooden table and features various grey, black, red, and yellow components. The background is blurred, showing what appears to be a workshop or office environment. The text "BUILD YOUR PROTOTYPE" is overlaid in the center of the image.

**BUILD YOUR PROTOTYPE**



# SERVICE WALKTHROUGH



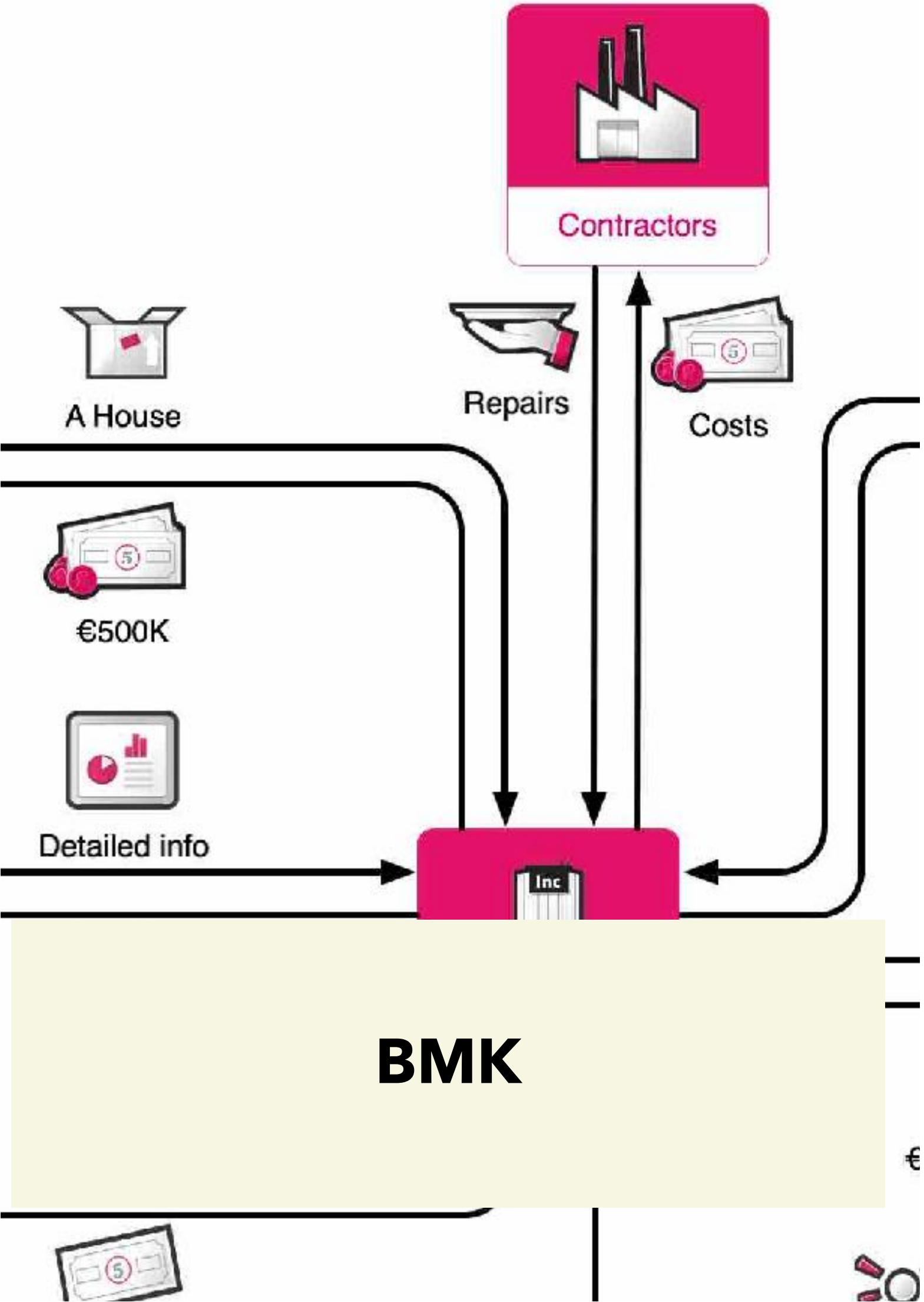
LEGO

# WIREFRAMING



POP

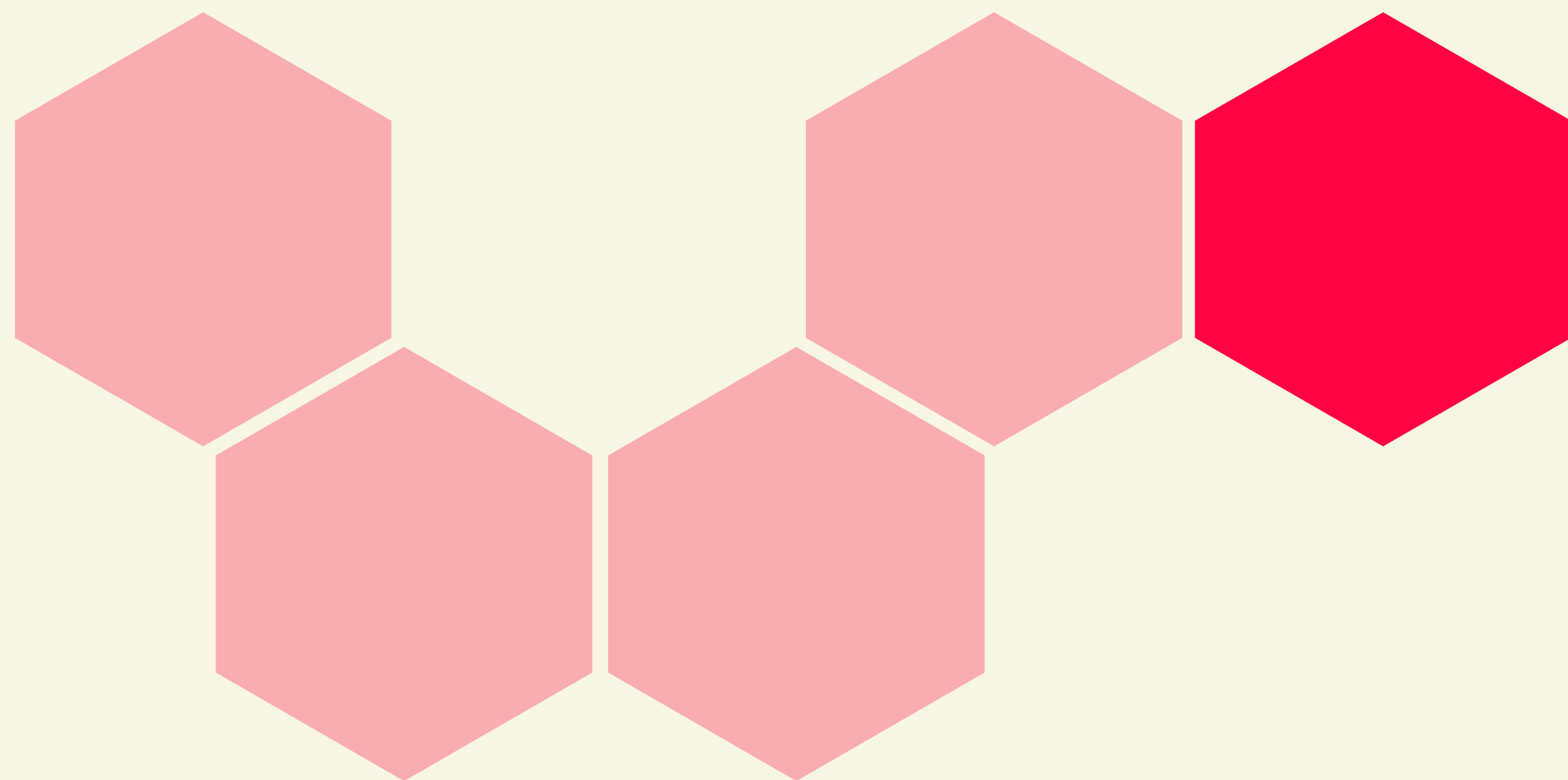
# BM VISUALIZATION



BMK



# Test





**Show don't tell!**



**POSITIVE  
FEEDBACK**

**NEGATIVE  
FEEDBACK**

**+**

**-**

**?**

**!**

**QUESTIONS**

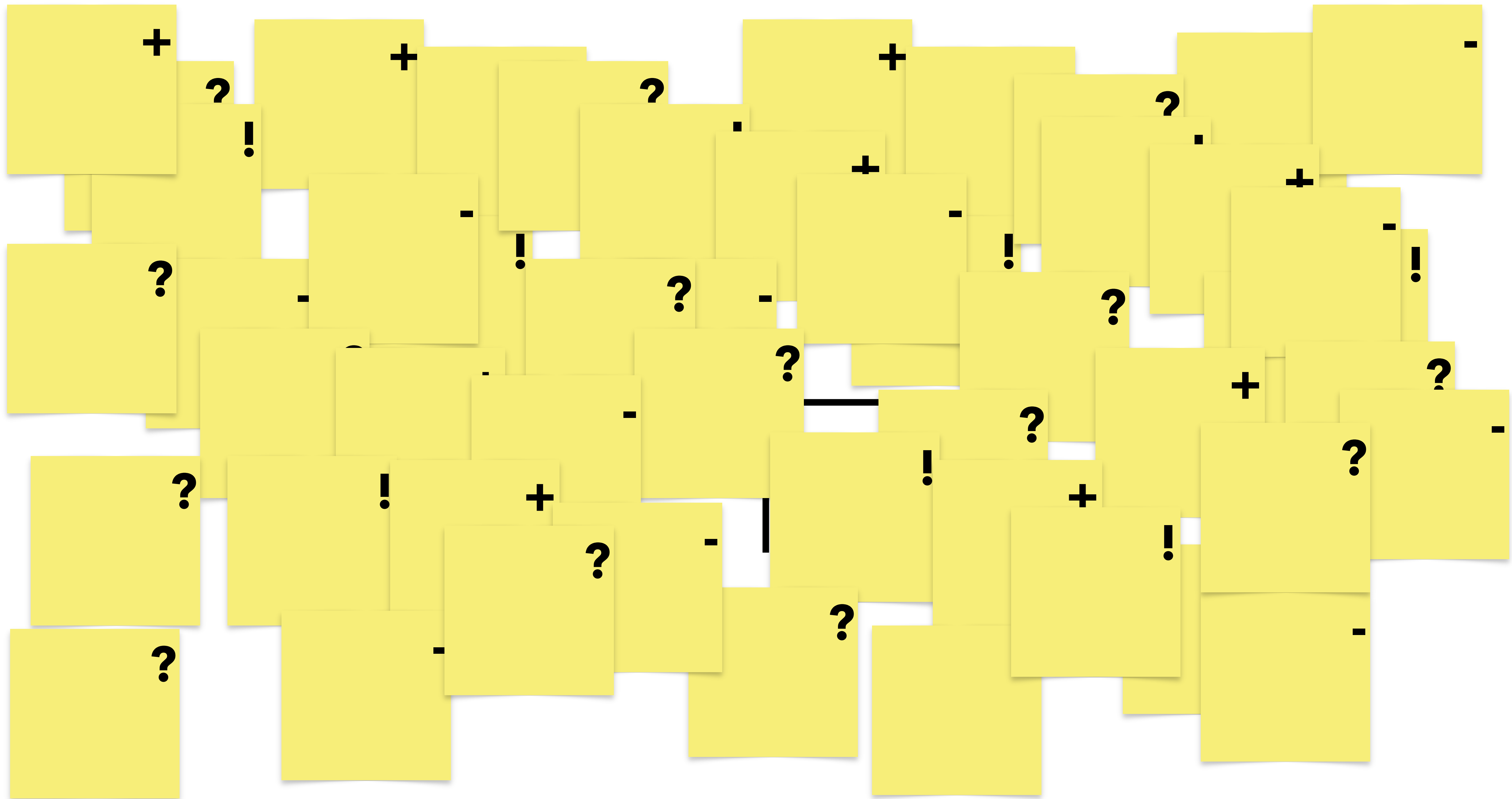
**IDEAS**



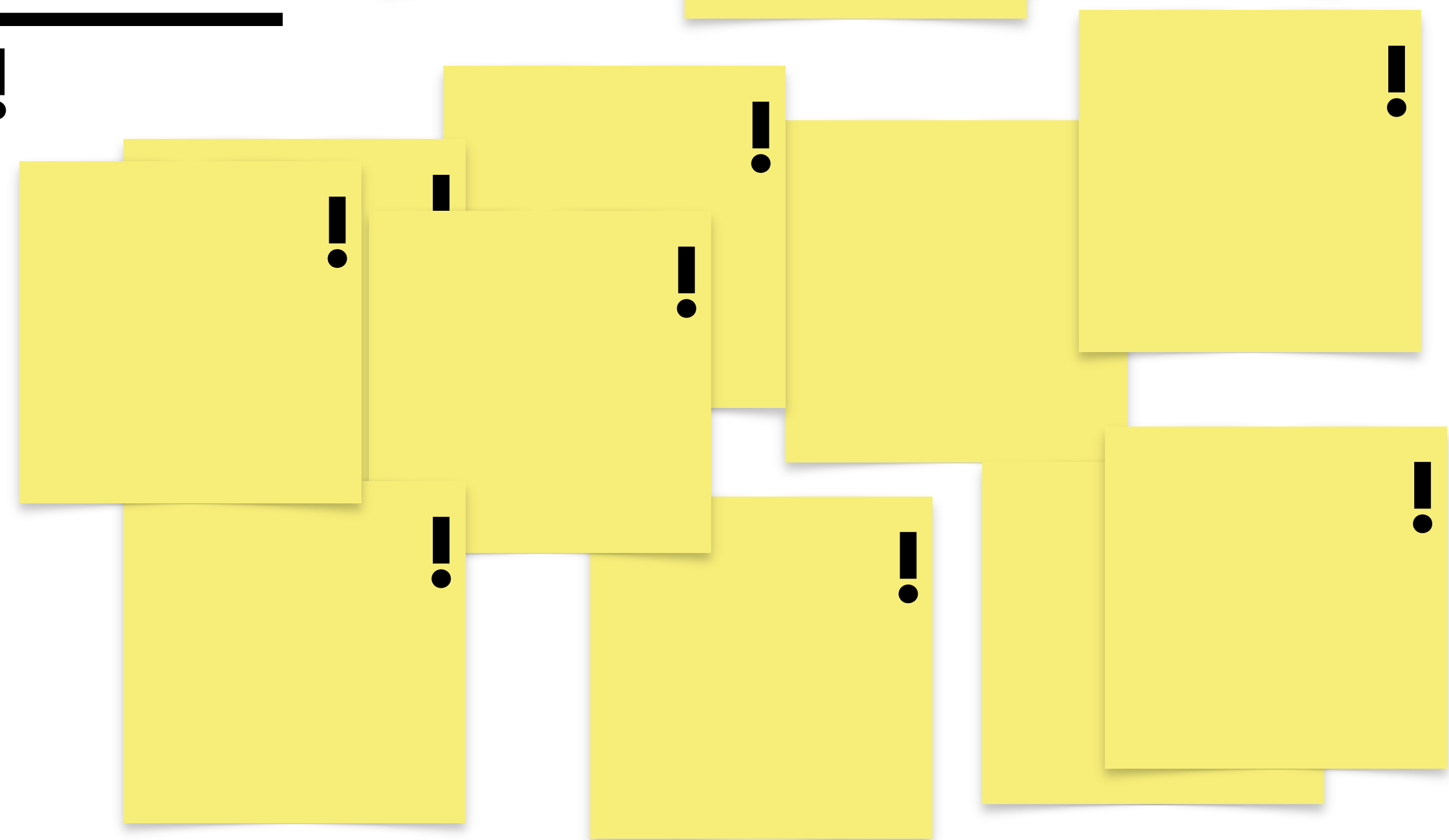
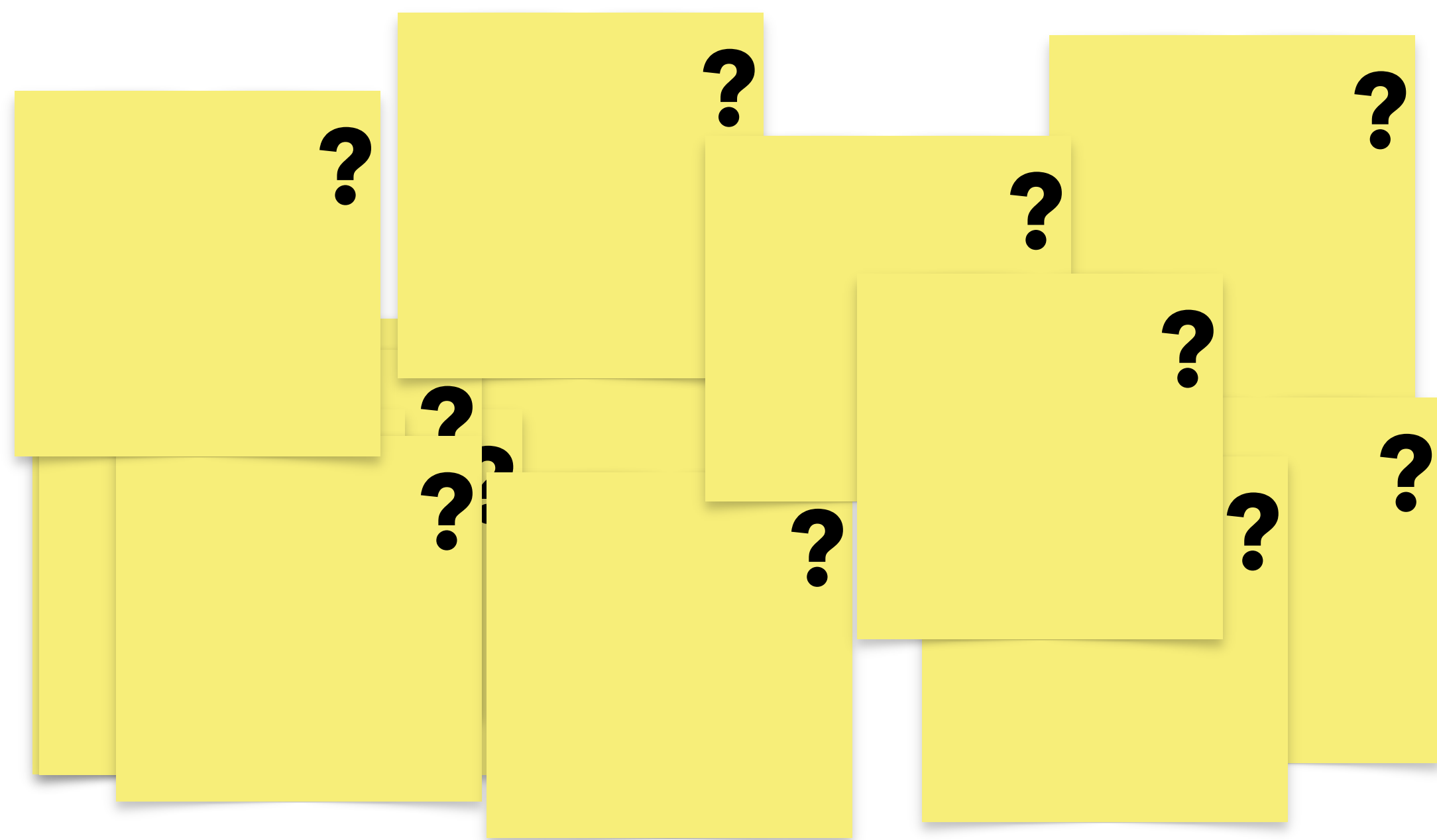
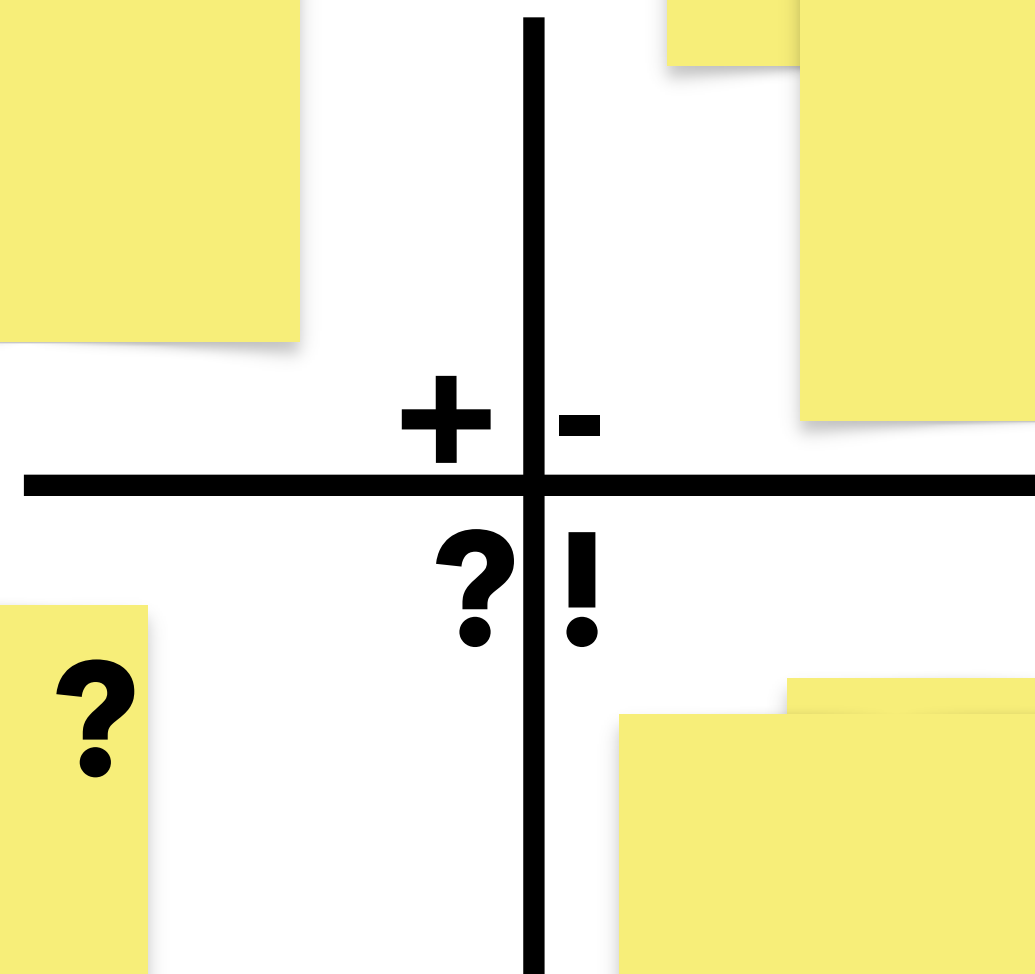
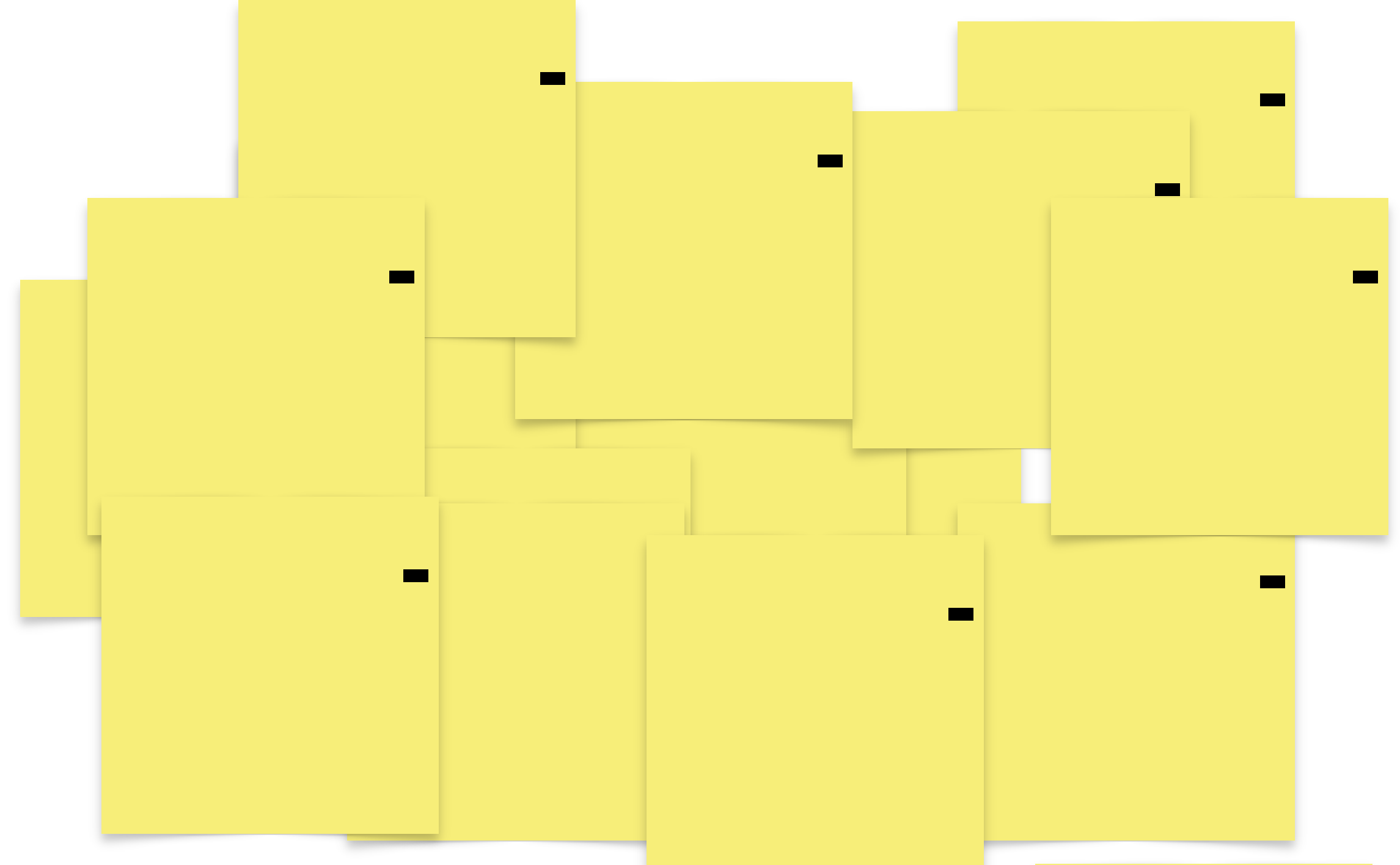
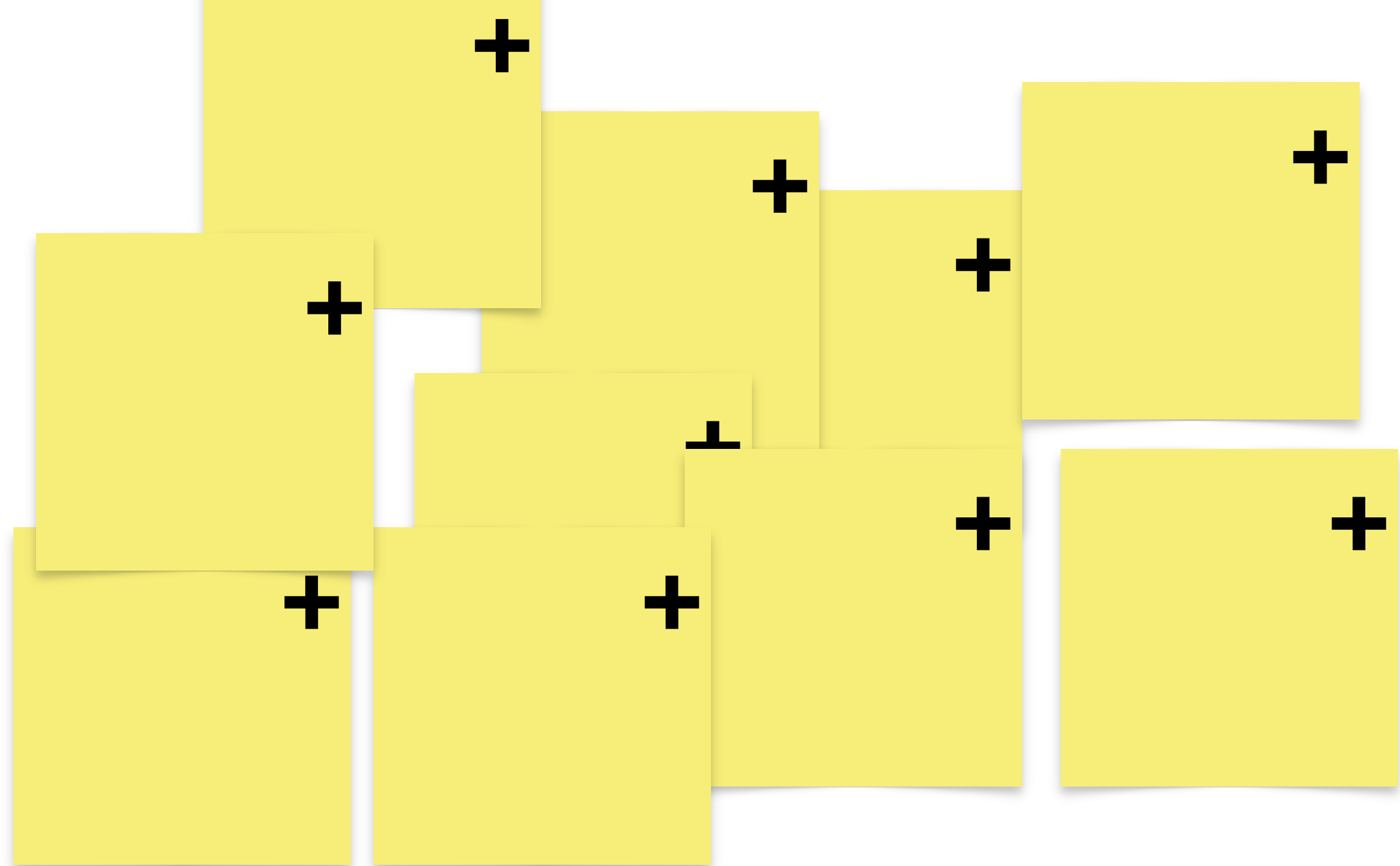
# **Linear Unpacking**

Spotting patterns in the chaos

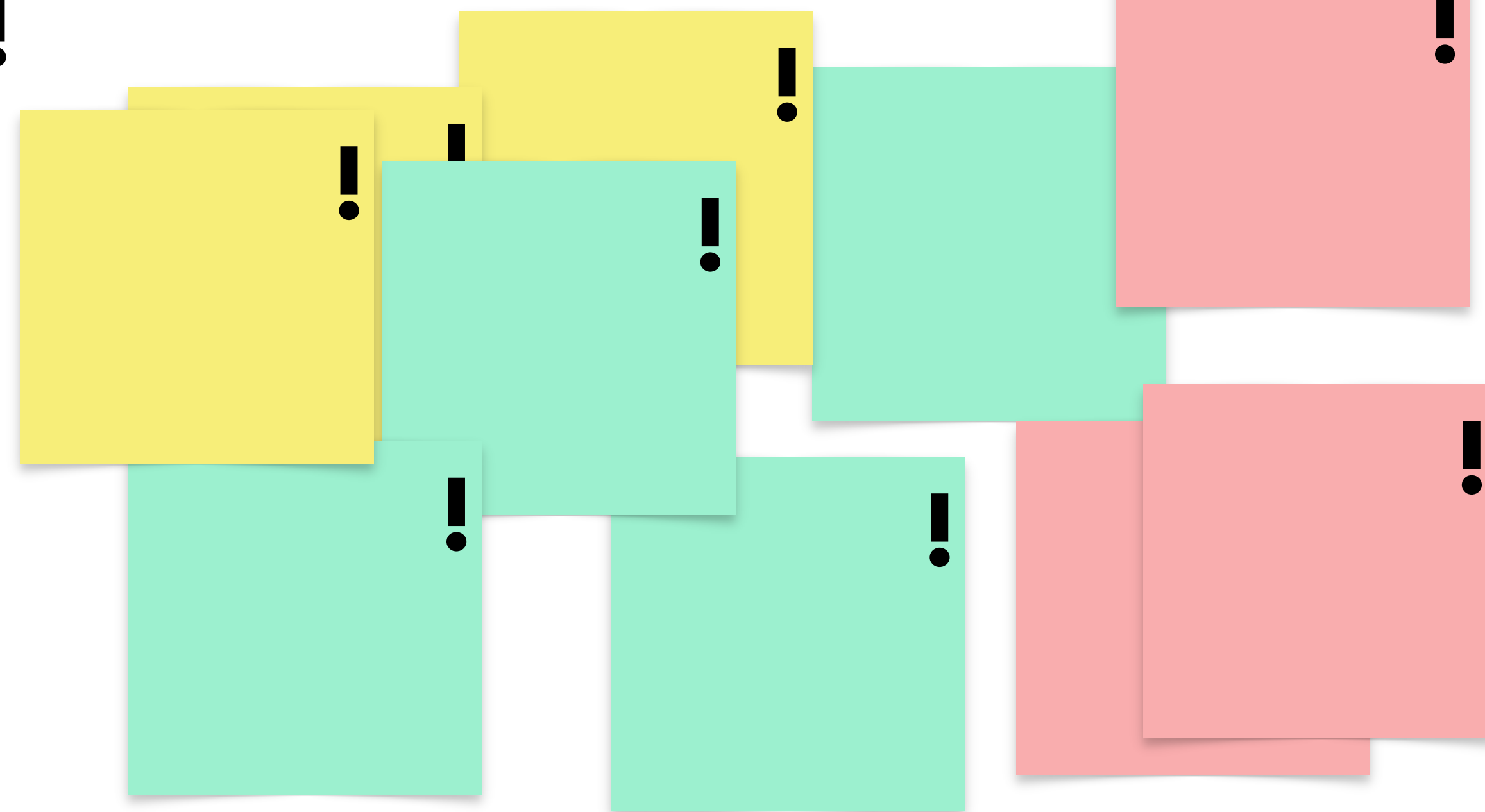
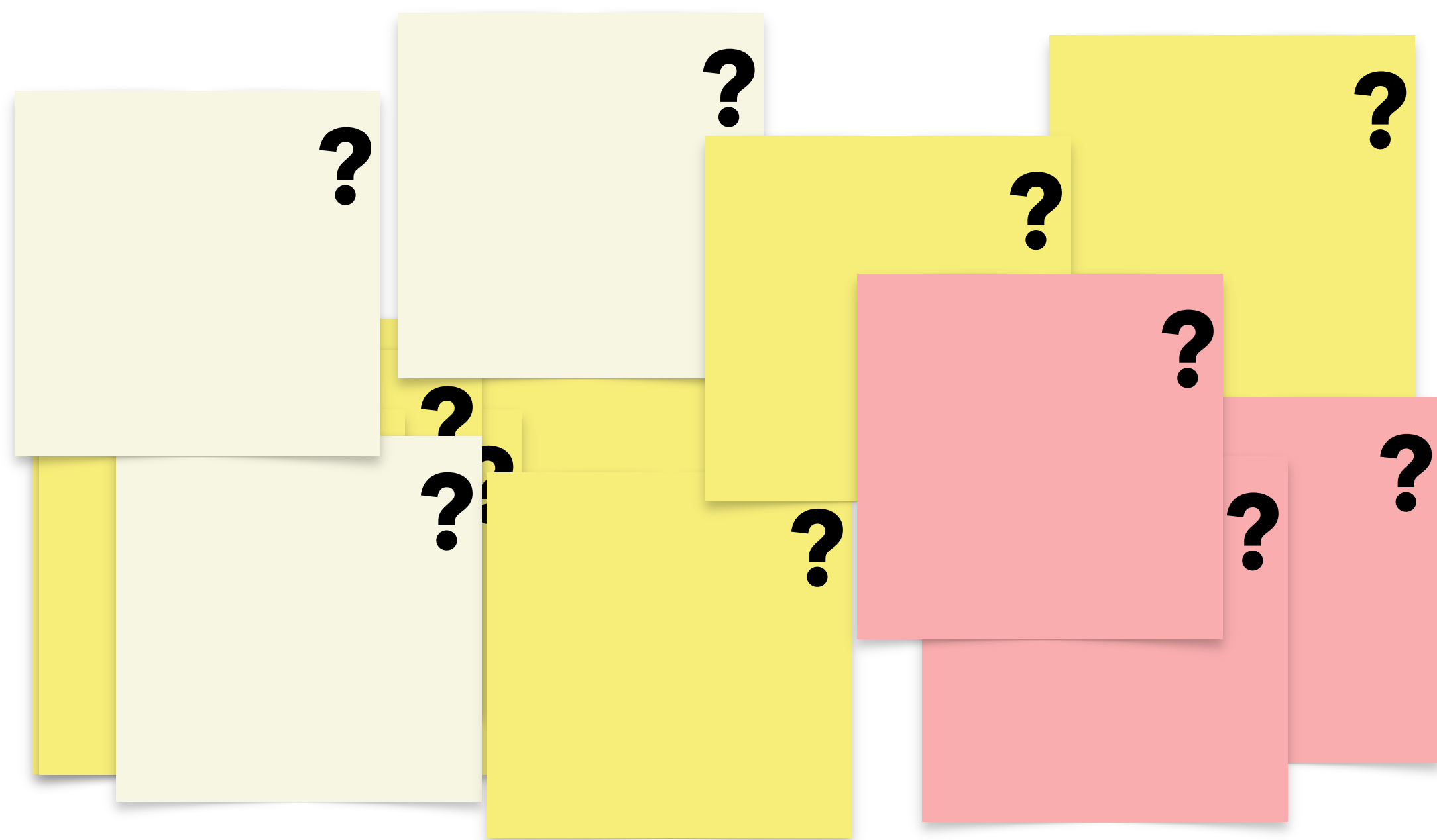
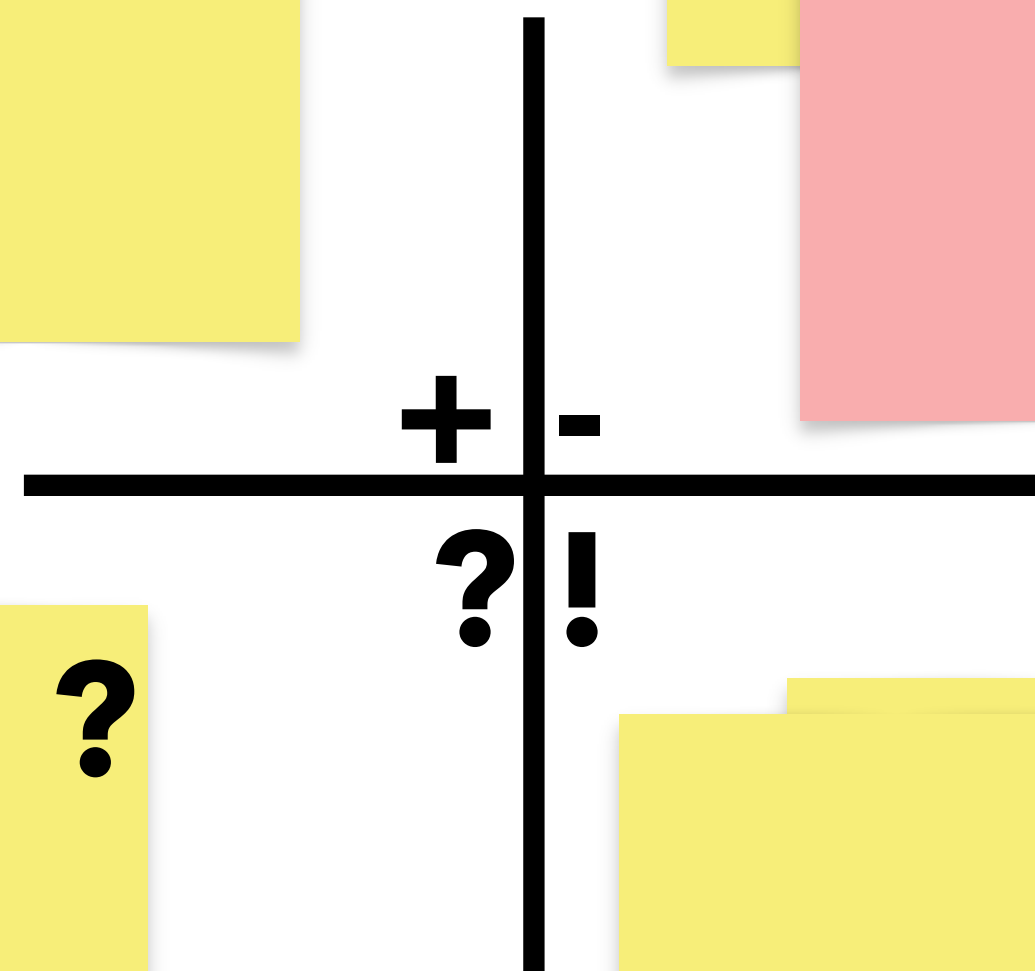
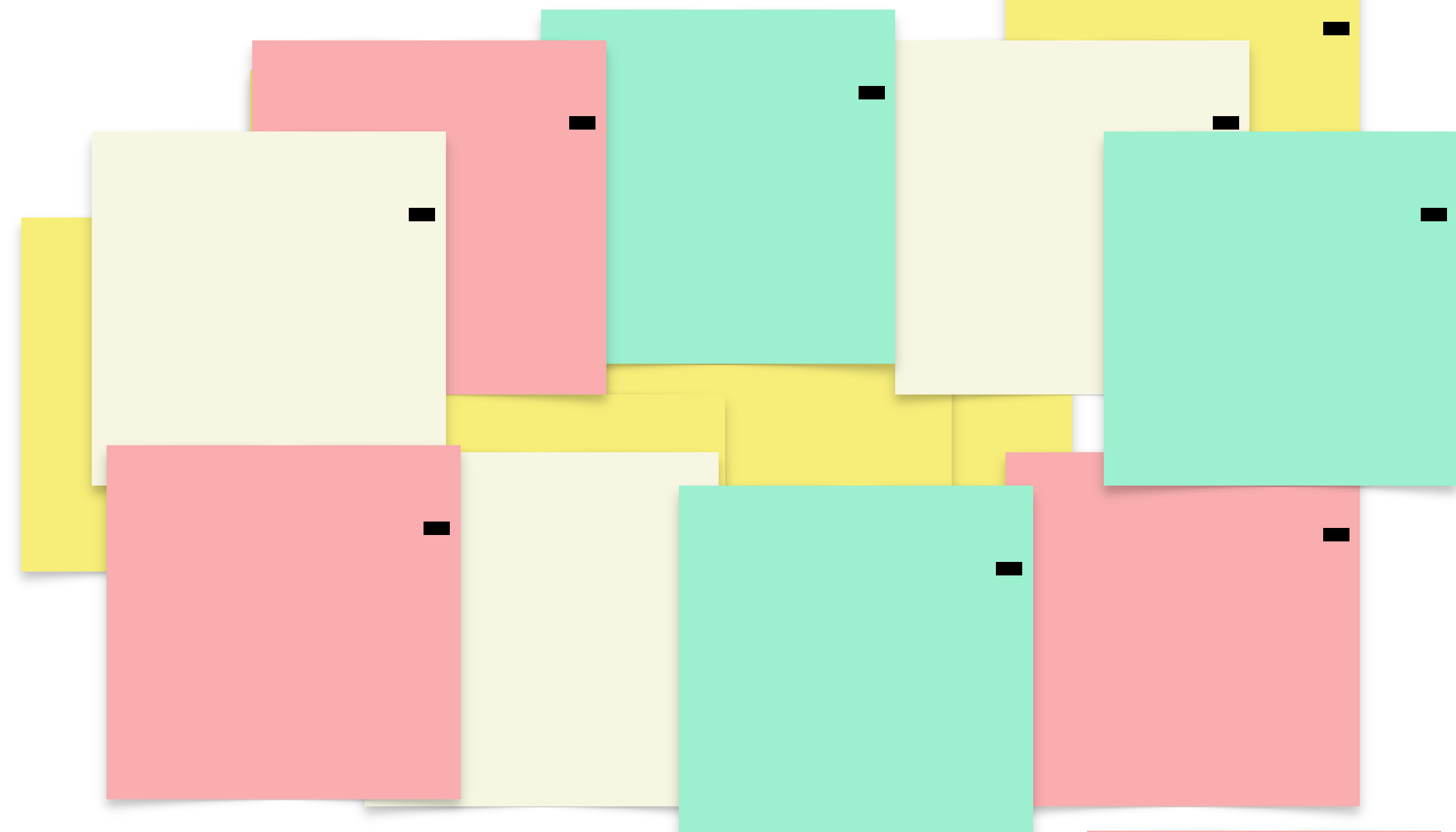
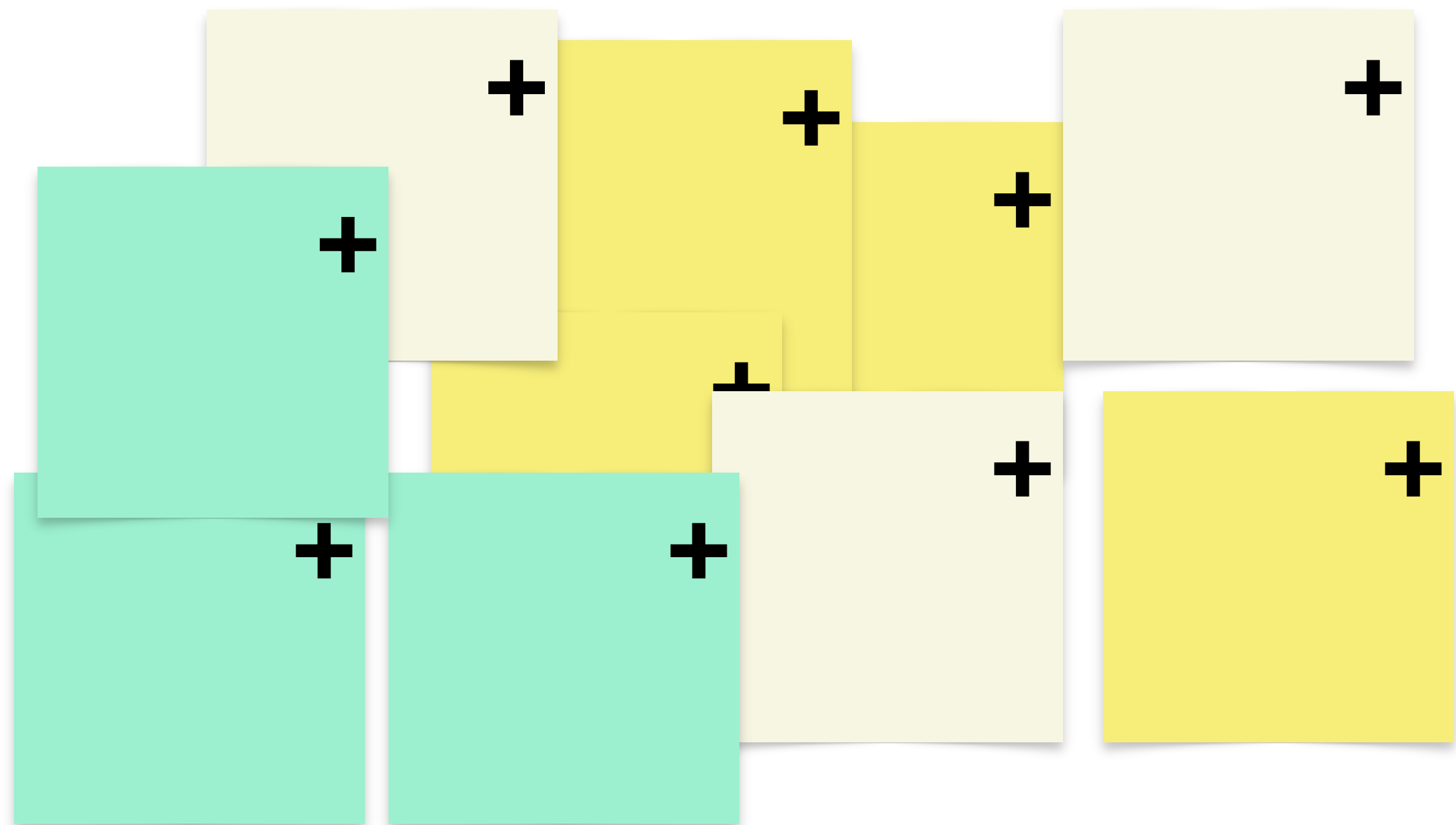










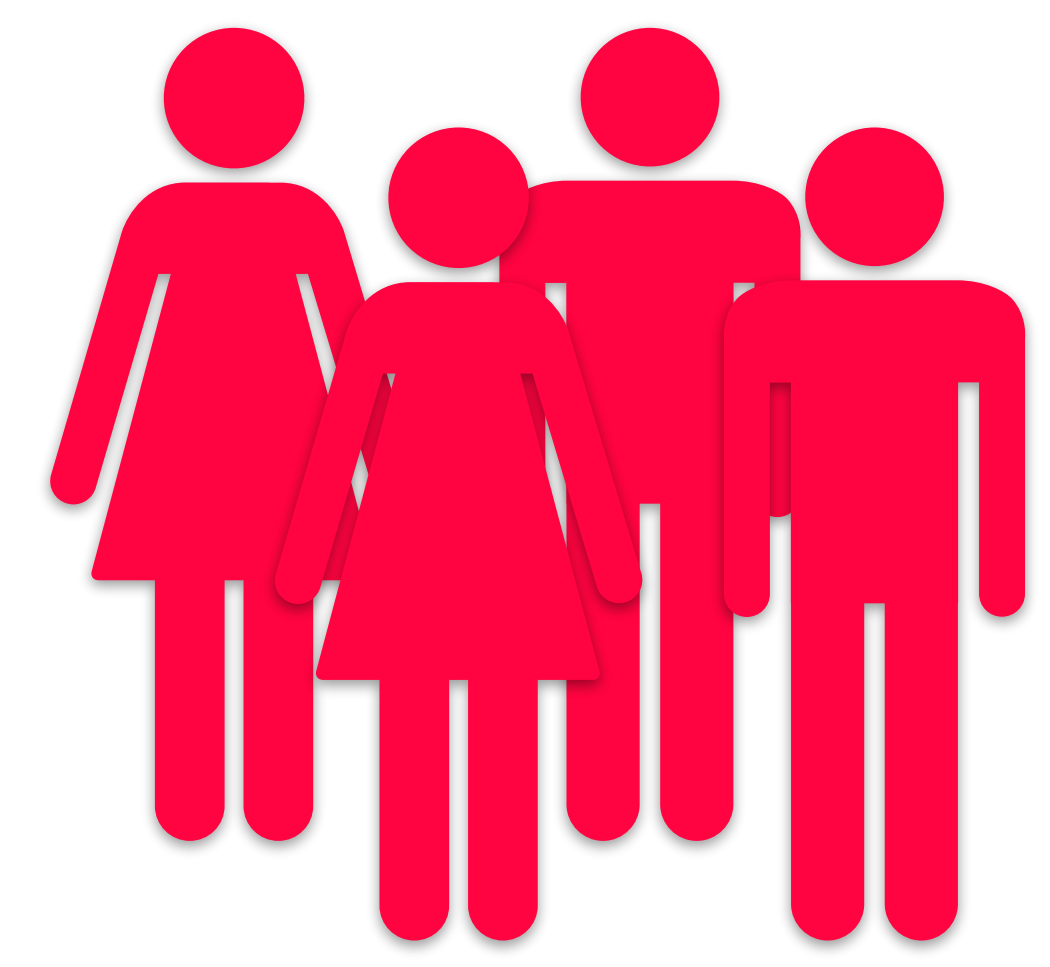
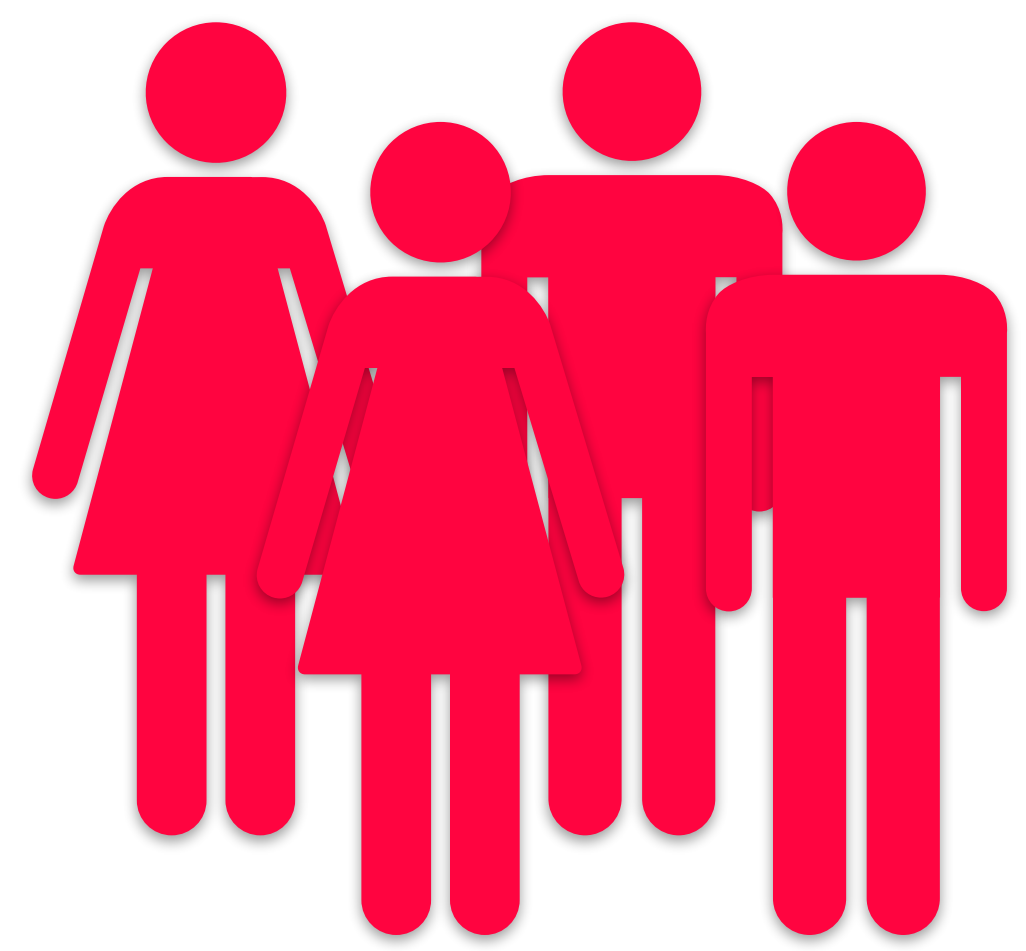




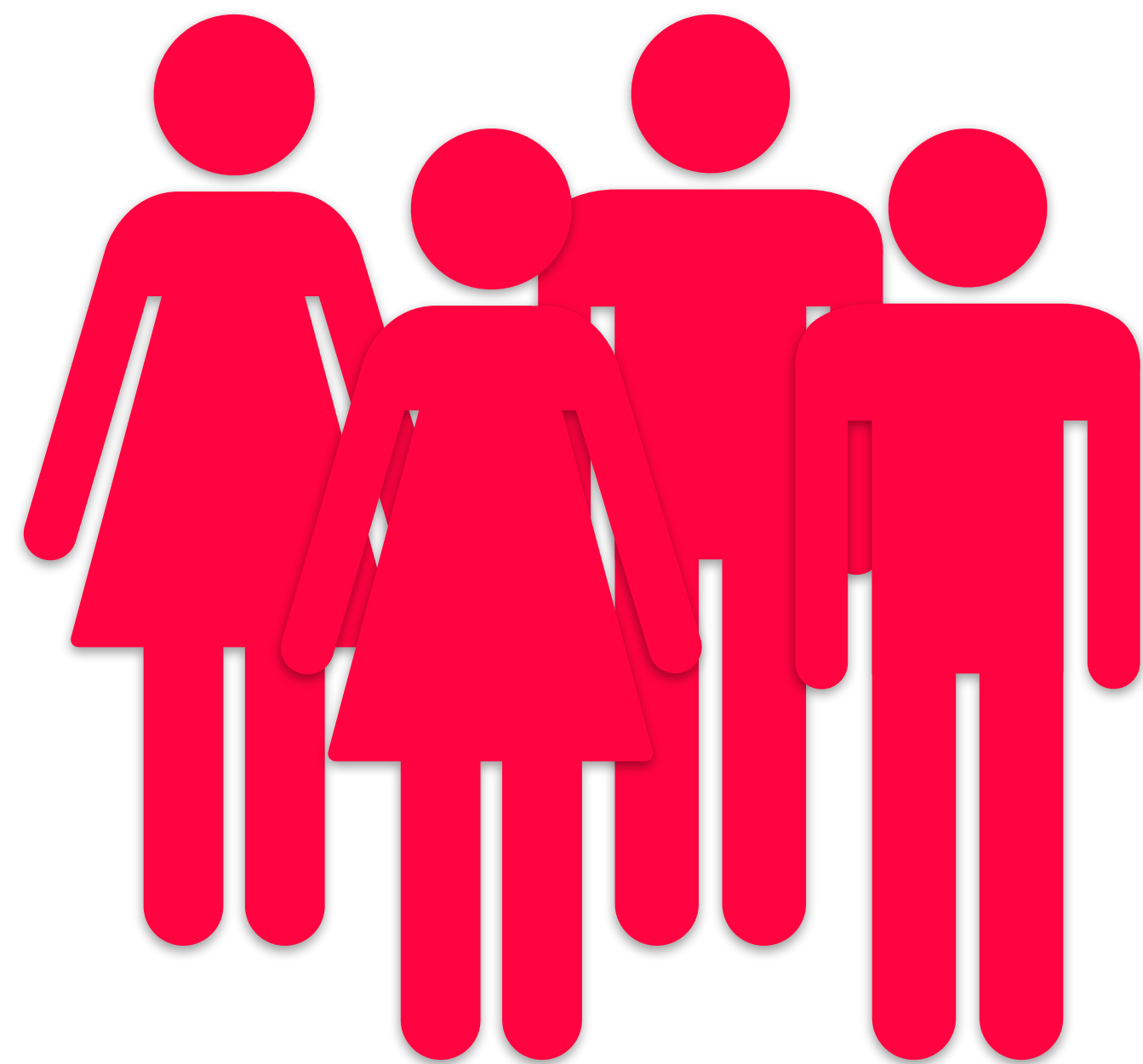
# TEST

**Your turn!**

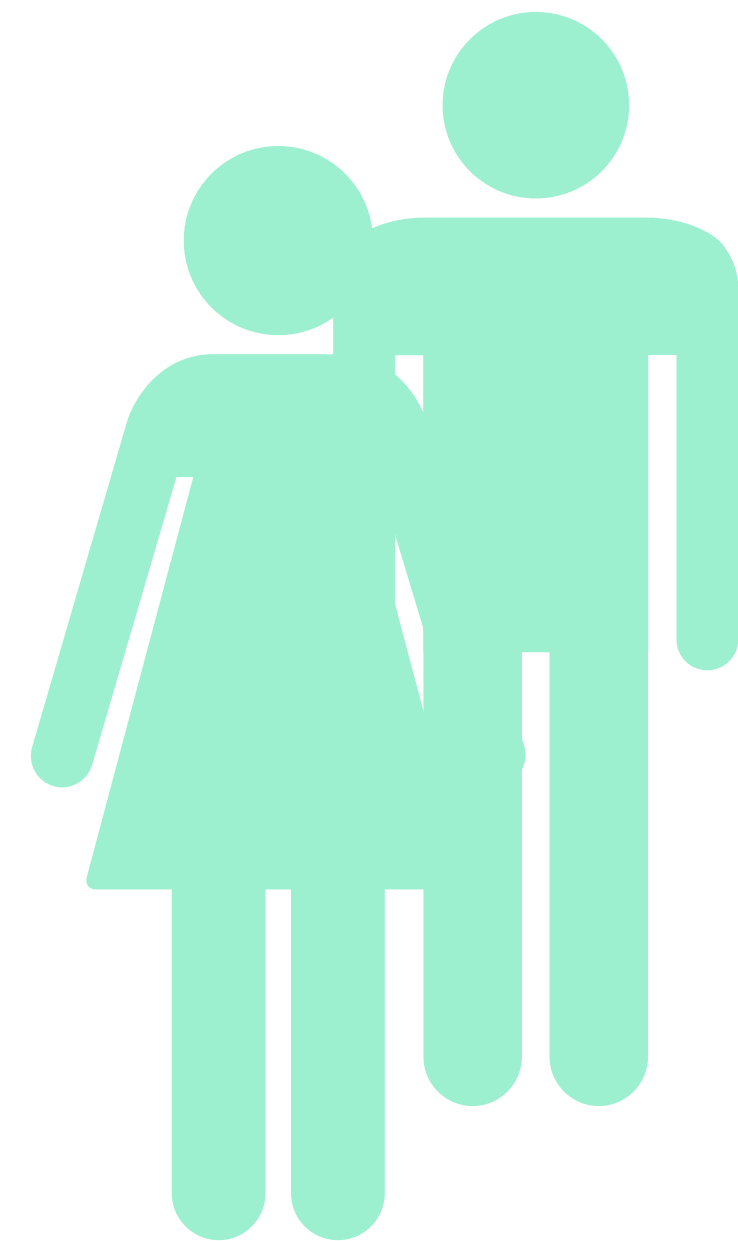






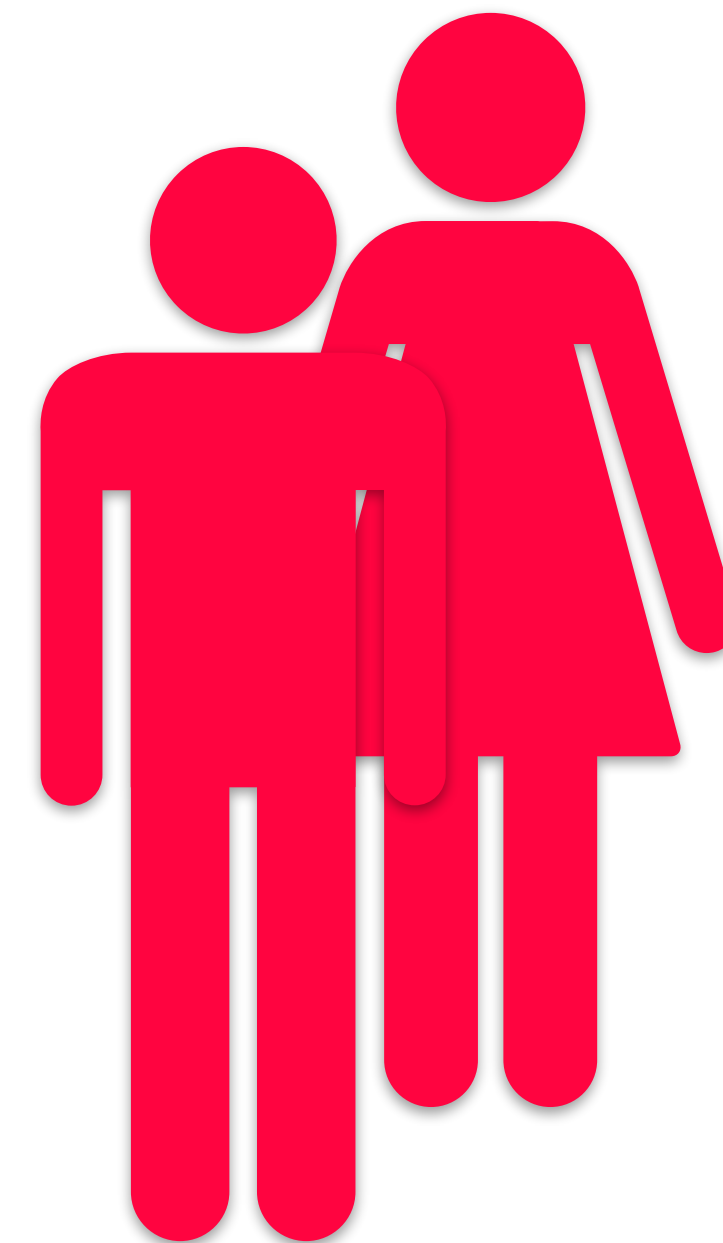






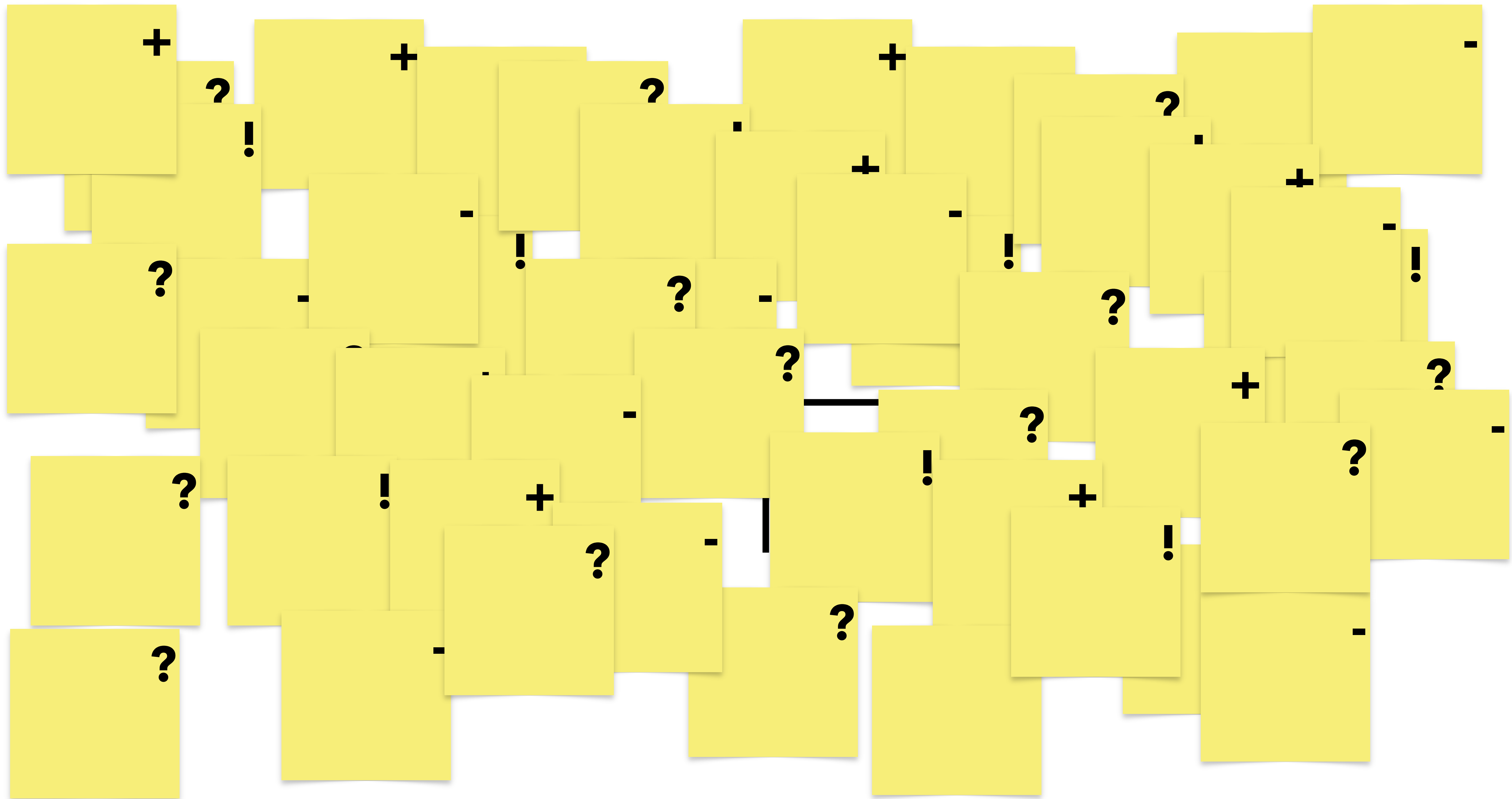
**CUSTOMERS**

**TEST!**

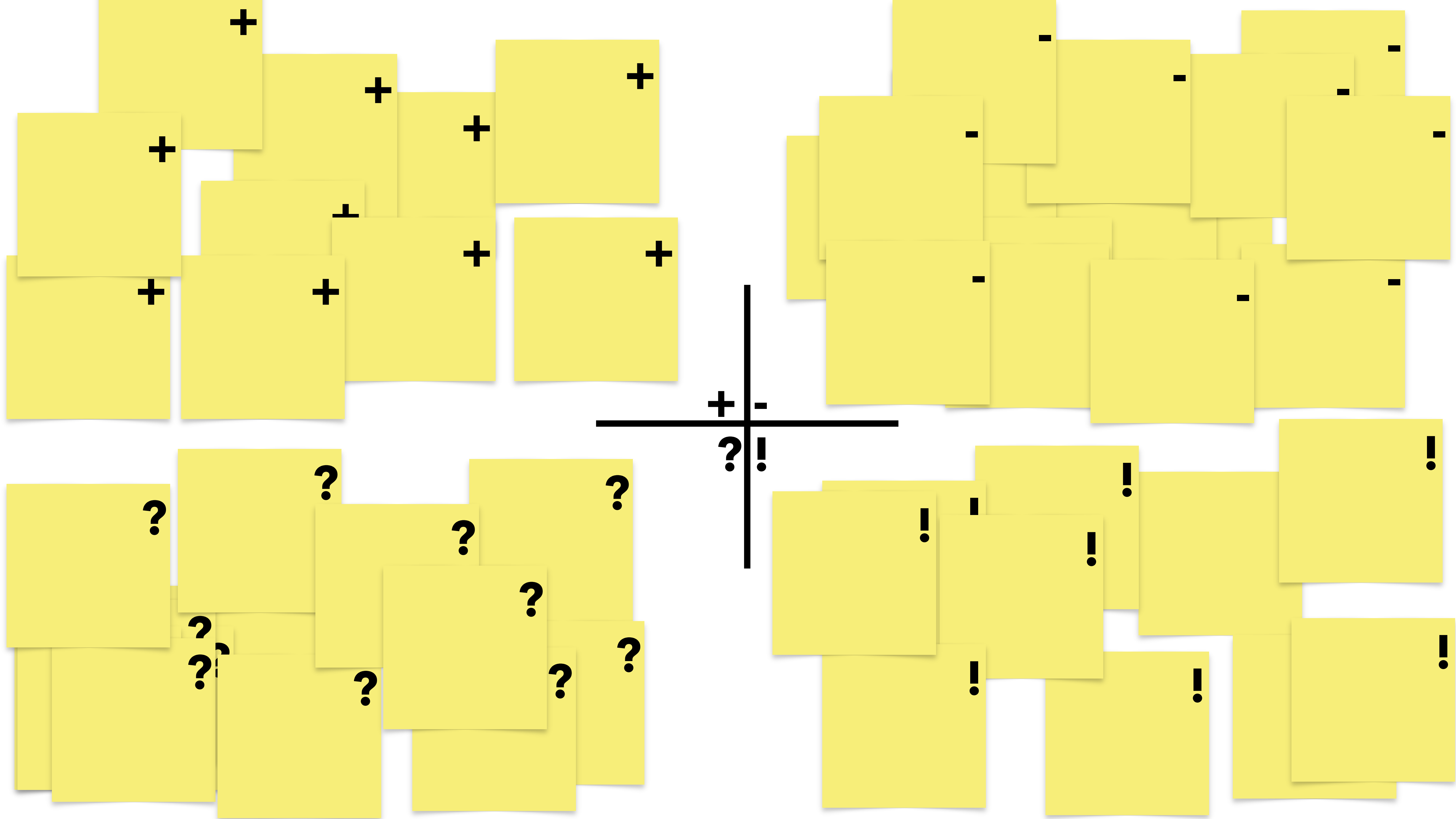


**INTERVIEWERS**

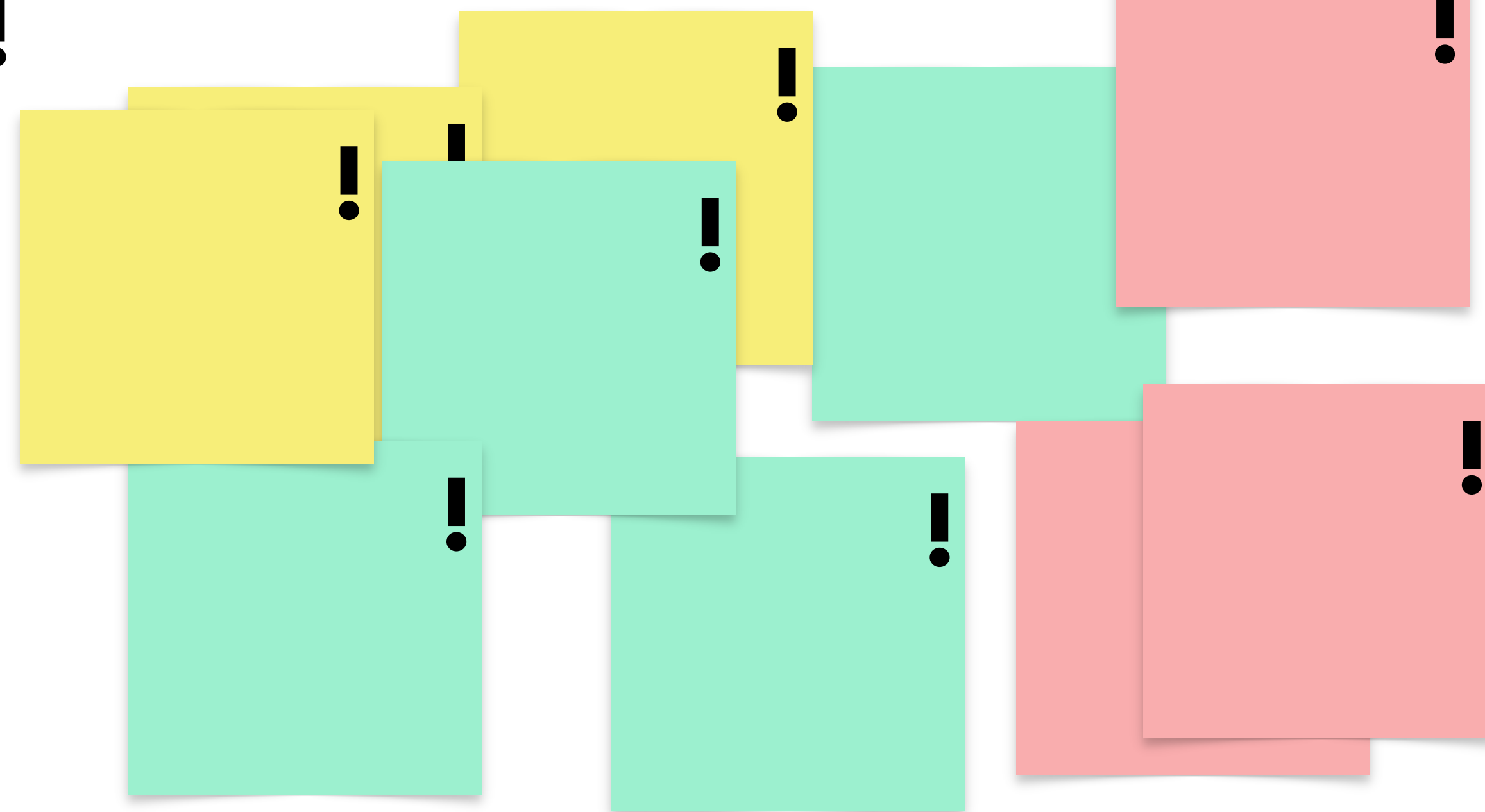
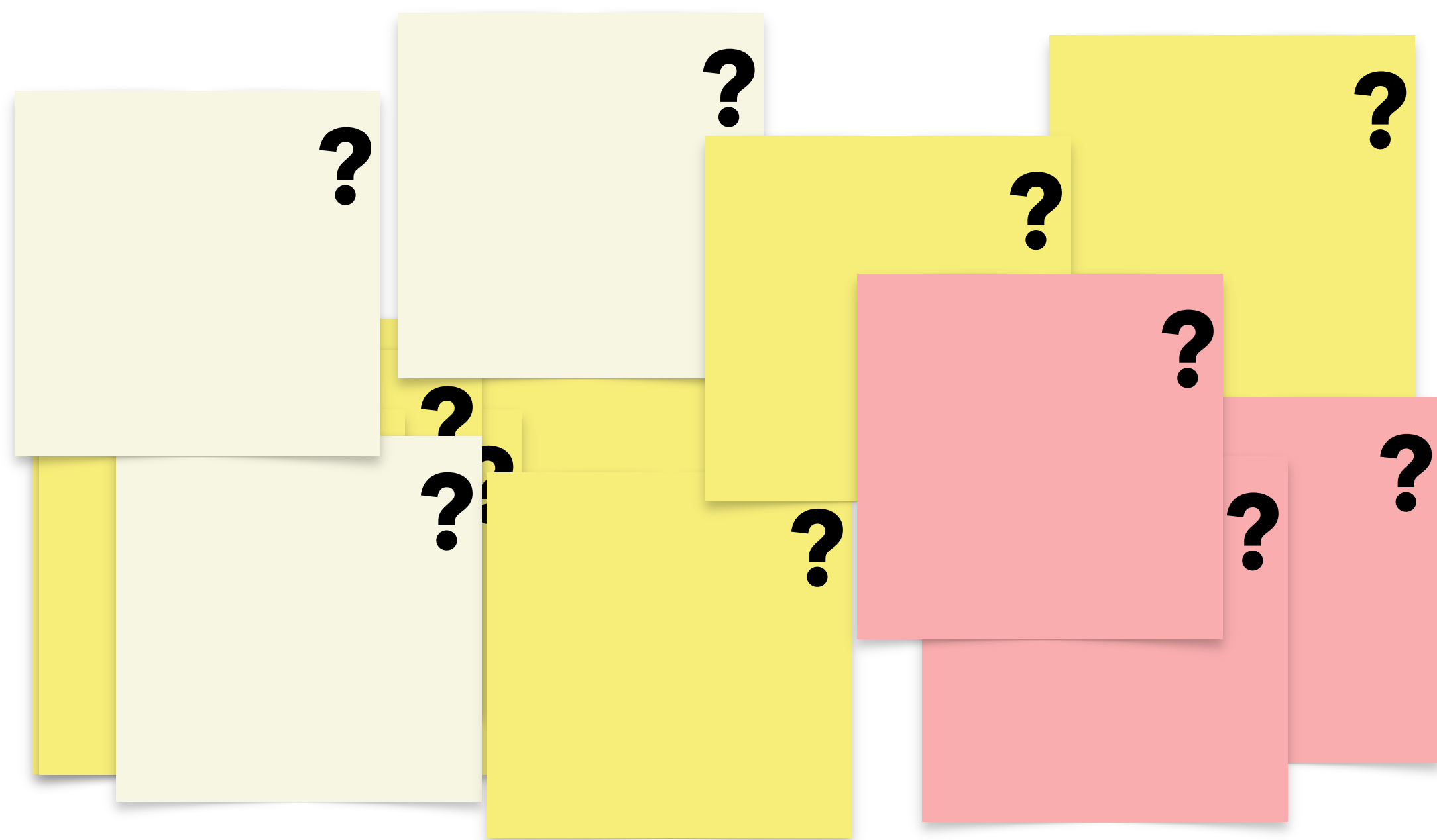
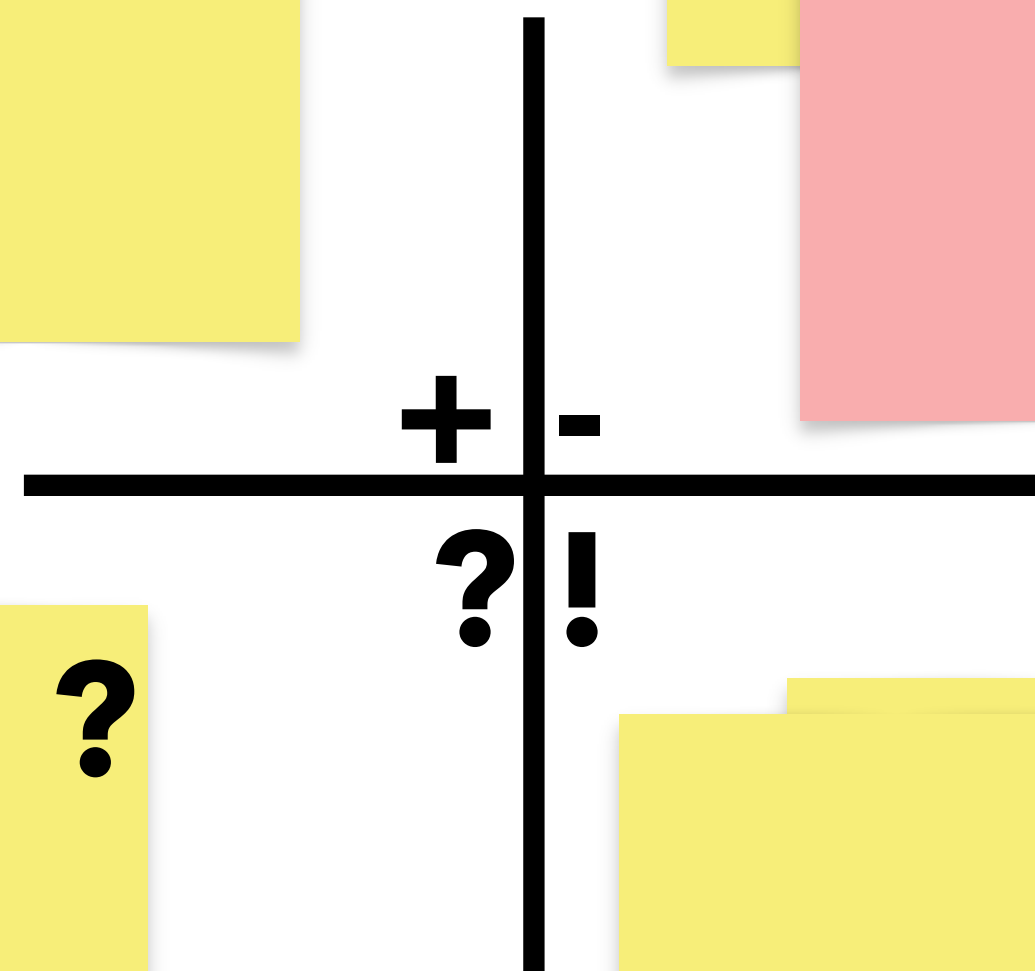
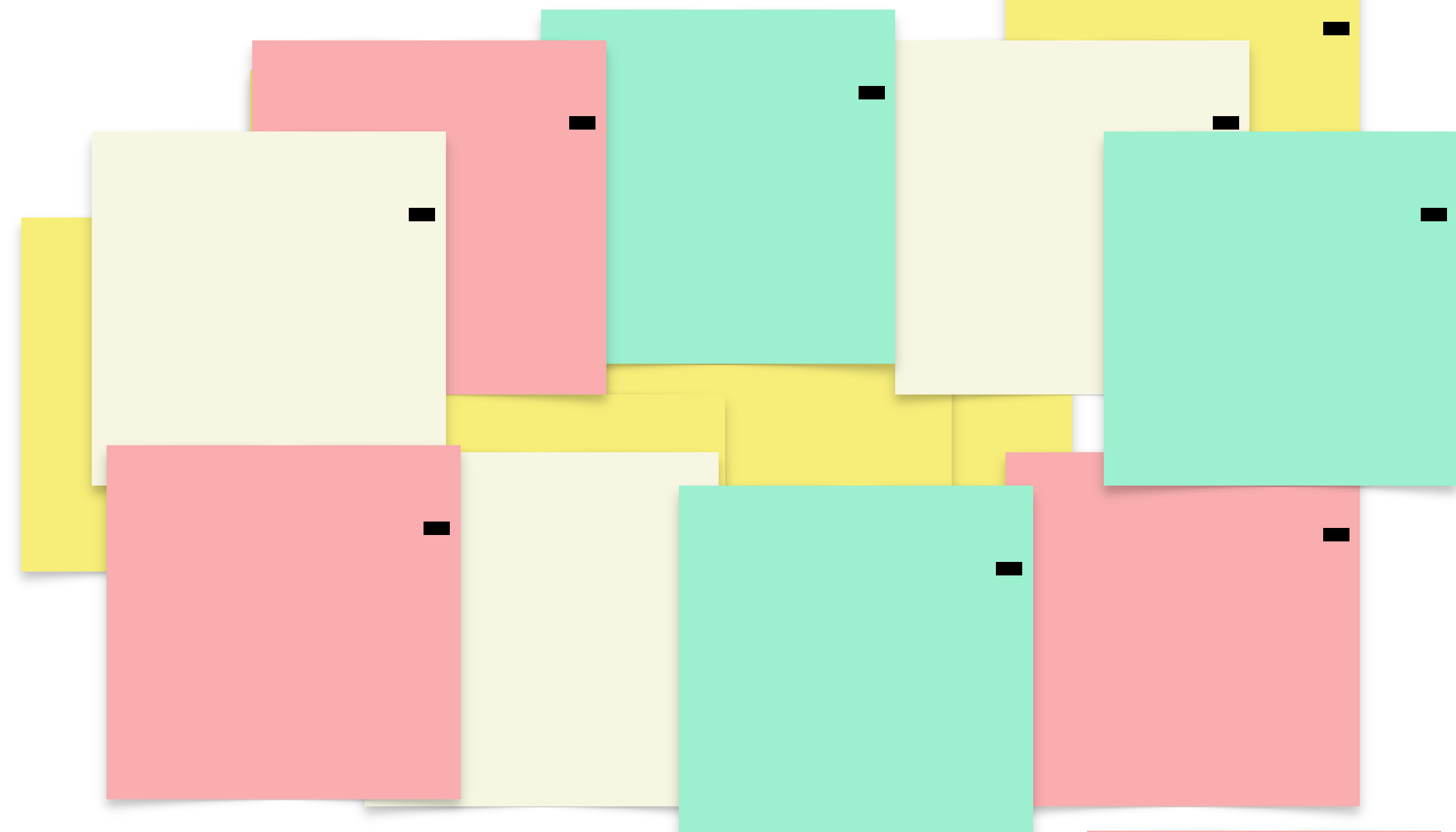
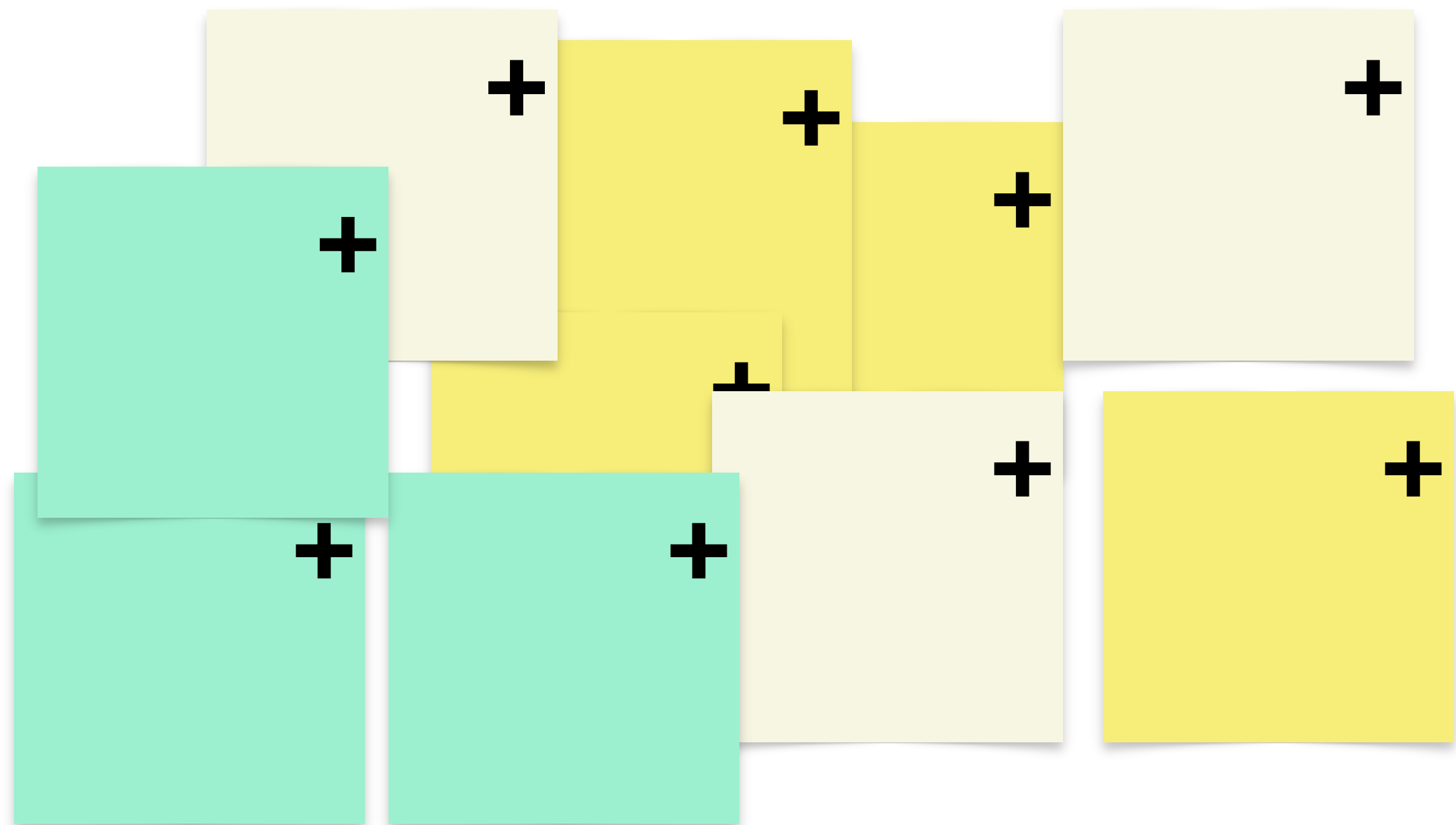










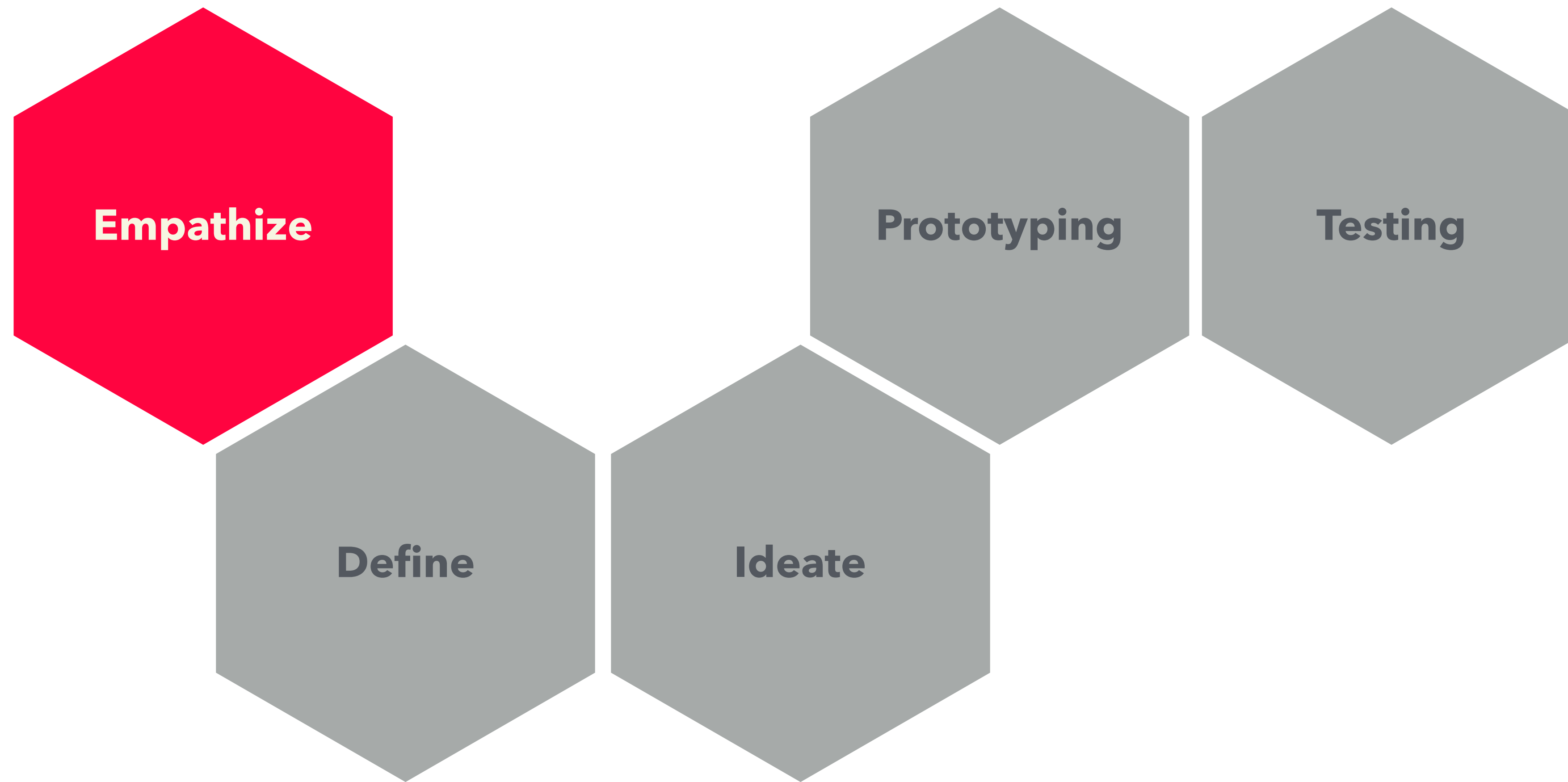




**Cool. Now what?**

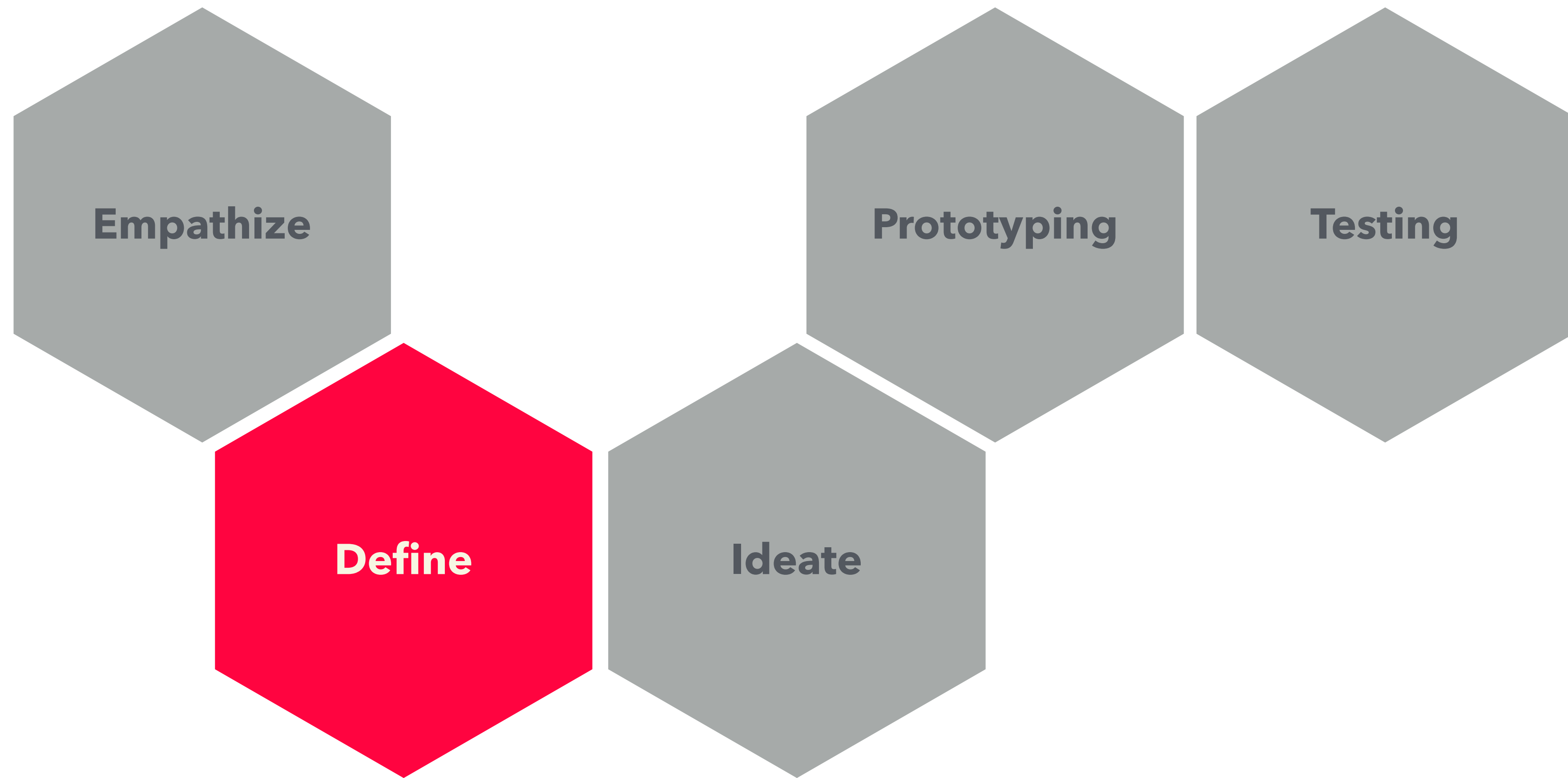
**REFLECT AND COMMIT**

# Empathy gives us the right insights

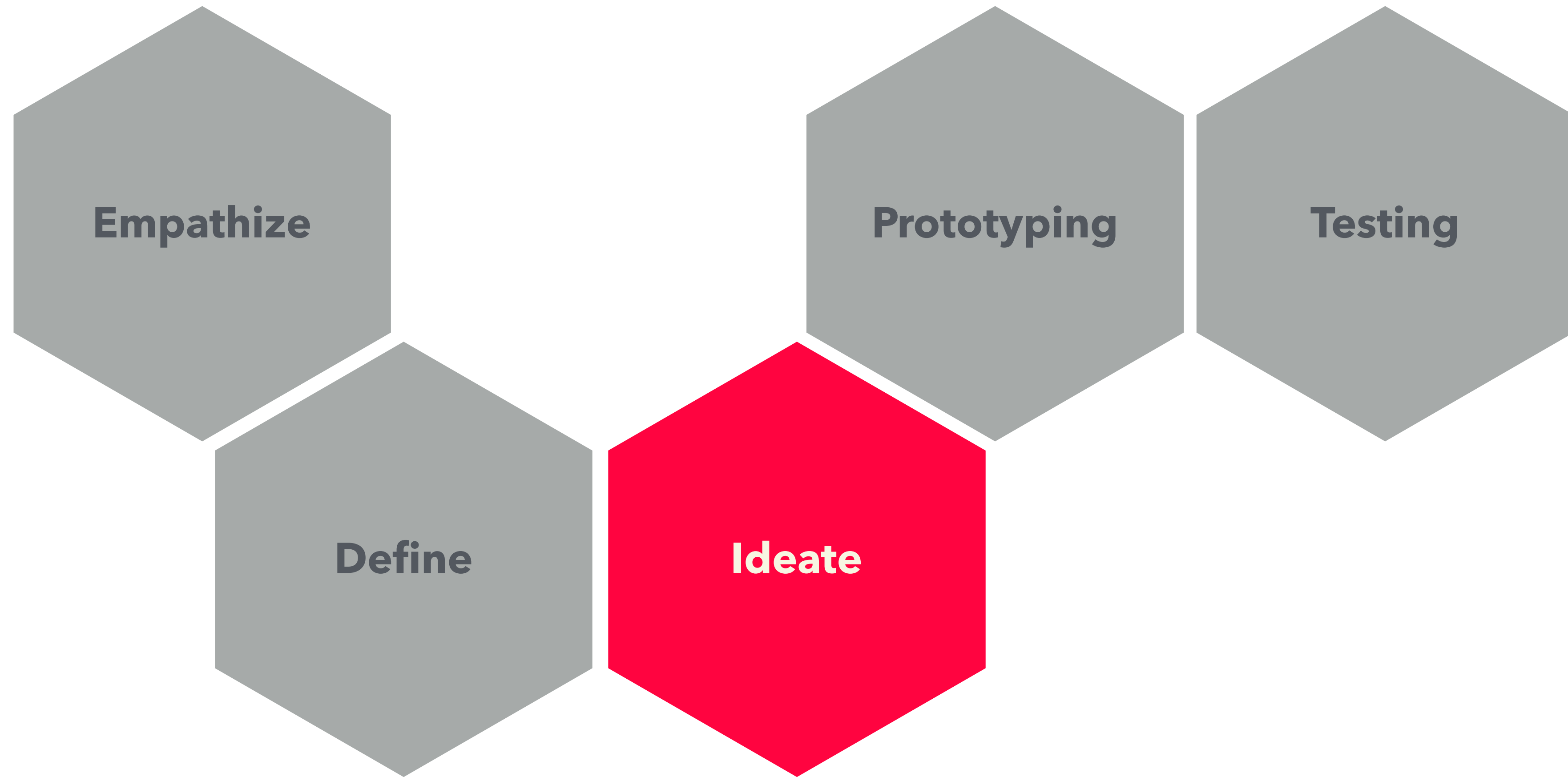




# Defining hones in on the most critical problems

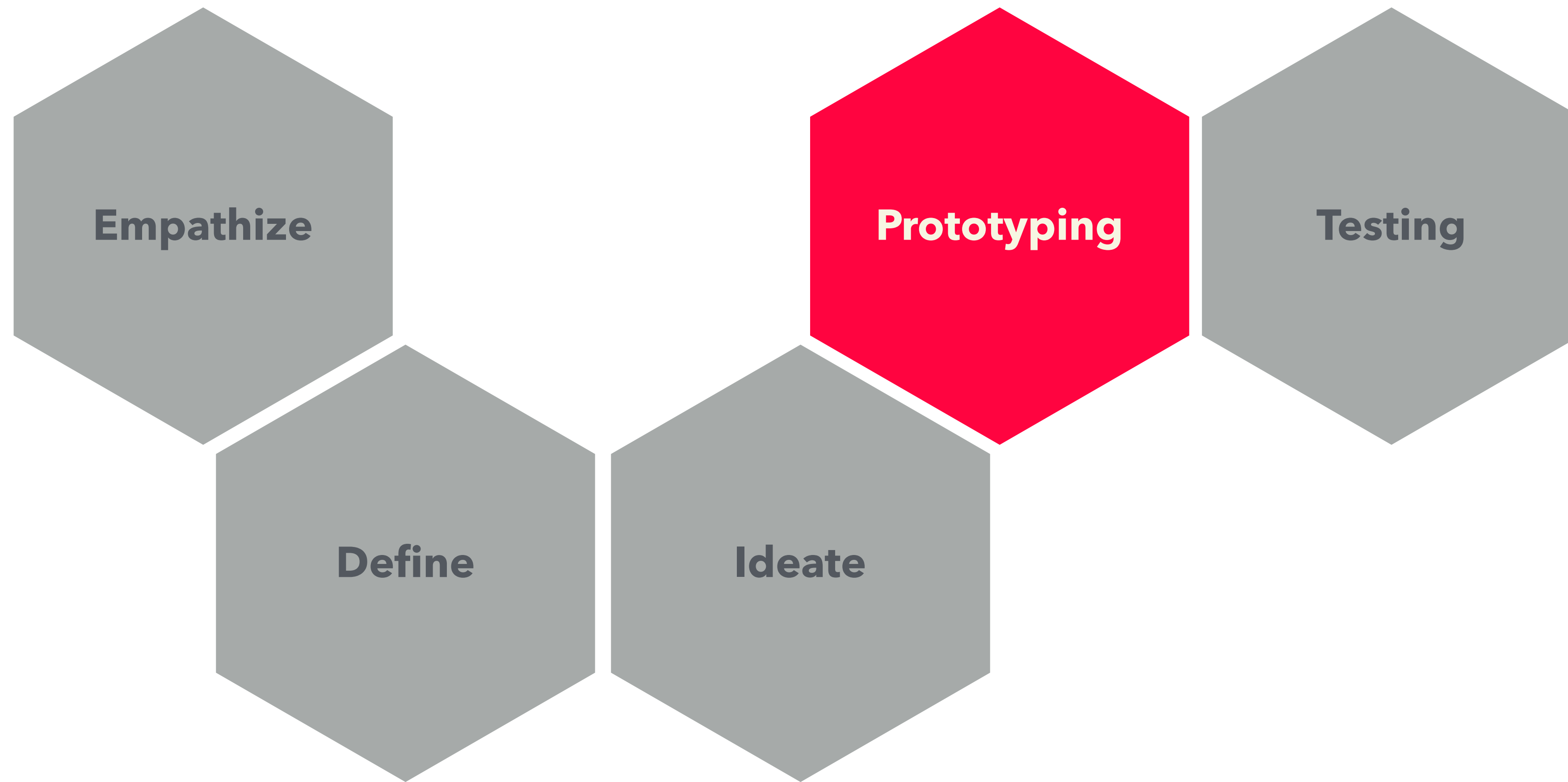


# Ideation inspires possible solutions

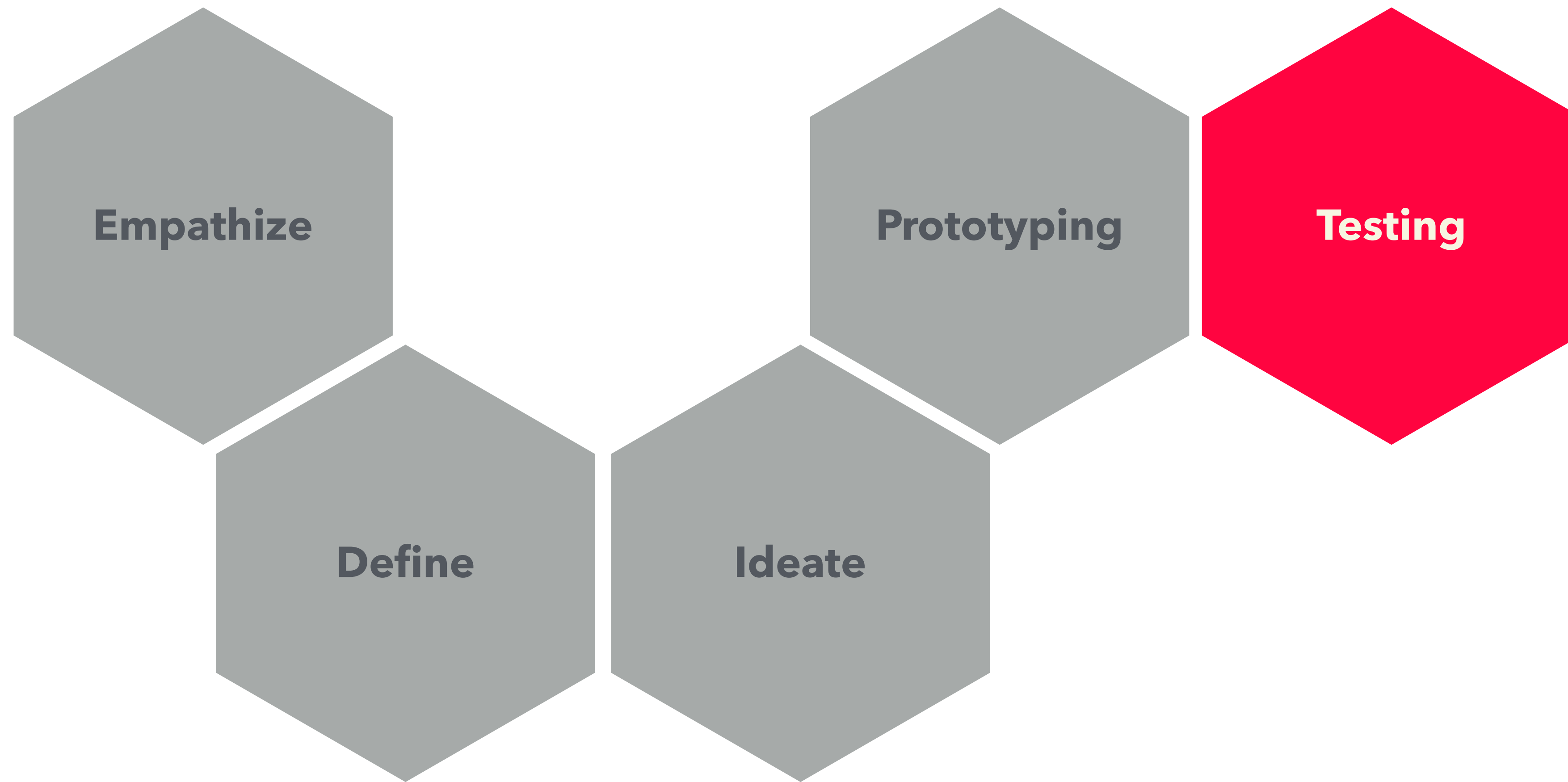




# Prototyping is the bridge to testing



# Testing validates our assumptions





**Key take-away?**

**How Might We apply design thinking in our day to day?**



# Barriers & Boosters

IMPLEMENTING DESIGN THINKING AT MTA

## BARRIERS



## BOOSTERS



# **Wrap-up**

**YOU WERE GREAT!**



# Looking Back

WHAT ARE YOUR THOUGHTS

[www.surveymonkey.com/r/mtadesignthinking](https://www.surveymonkey.com/r/mtadesignthinking)

