# Validation guide

24 ways to test your business ideas

## board of innovation



# Validation guide

24 ways to test your business ideas



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We make corporates innovate like startups through strategy consulting, HR talent schemes and organizational transformation programs.

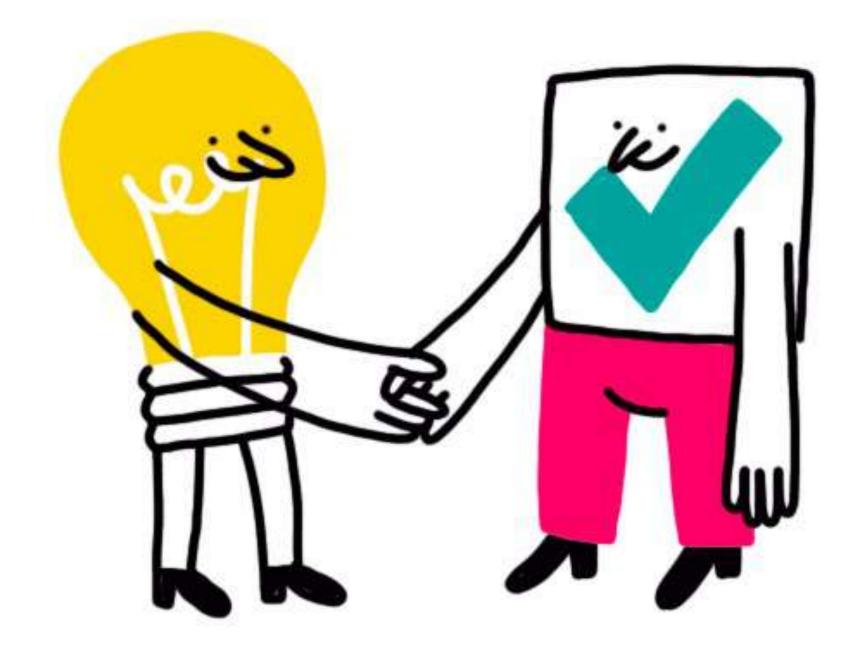


# **Before we start** What the heck is validation?



# Validation

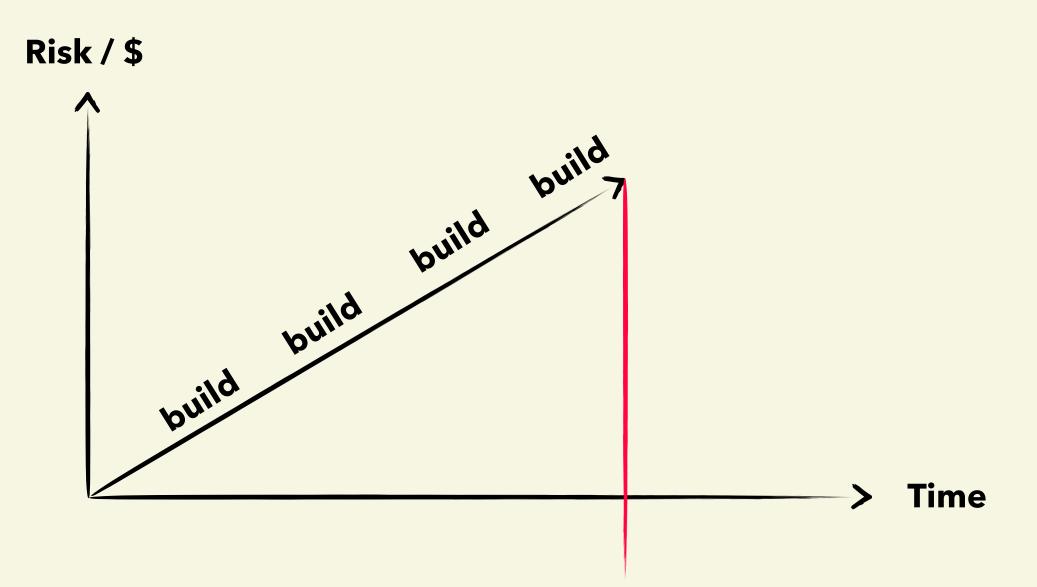
**Validation** • (n), the process of gathering evidence and learnings around business ideas through experimentation and user testing, in order to make faster, informed, de-risked decisions.





# Waterfall approach

Through experimentation and validation, you move away from the standard innovation approach used in corporations (example: build the car, launch it on the market) ...



### **RELEASE AND VALIDATE!**

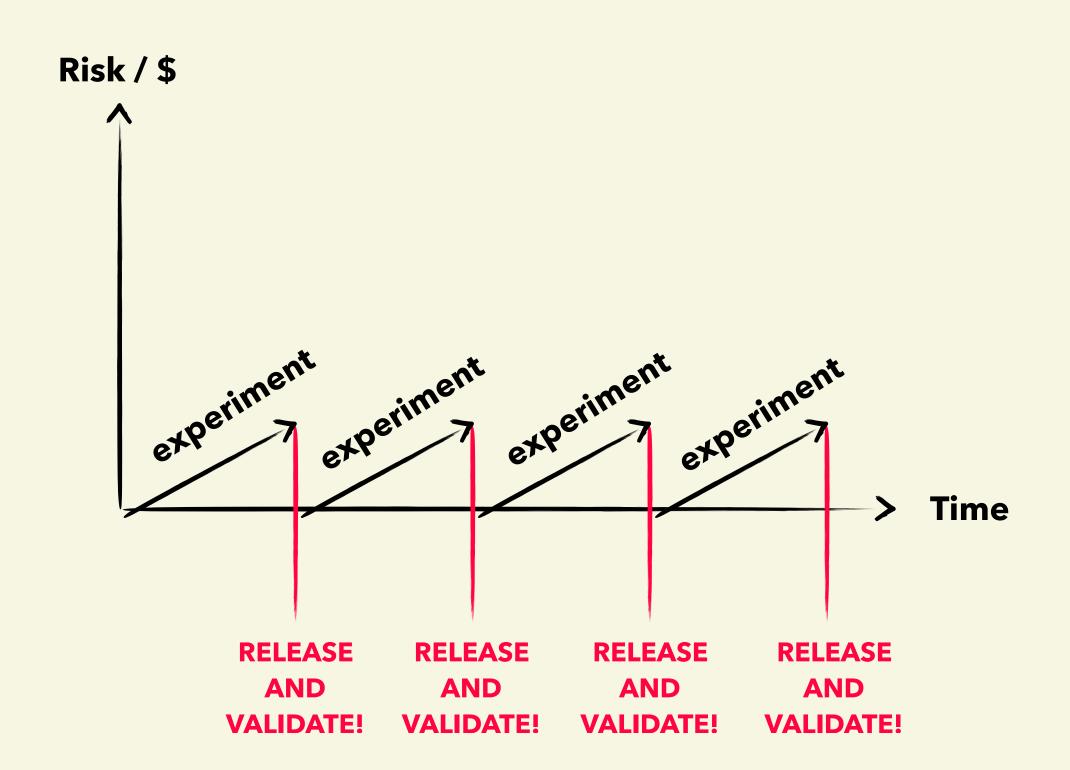
### Waterfall approach

High risk Validation of the business proposition at release Limited iterations Budget-consuming Validation of the whole concept at final release



## Lean approach

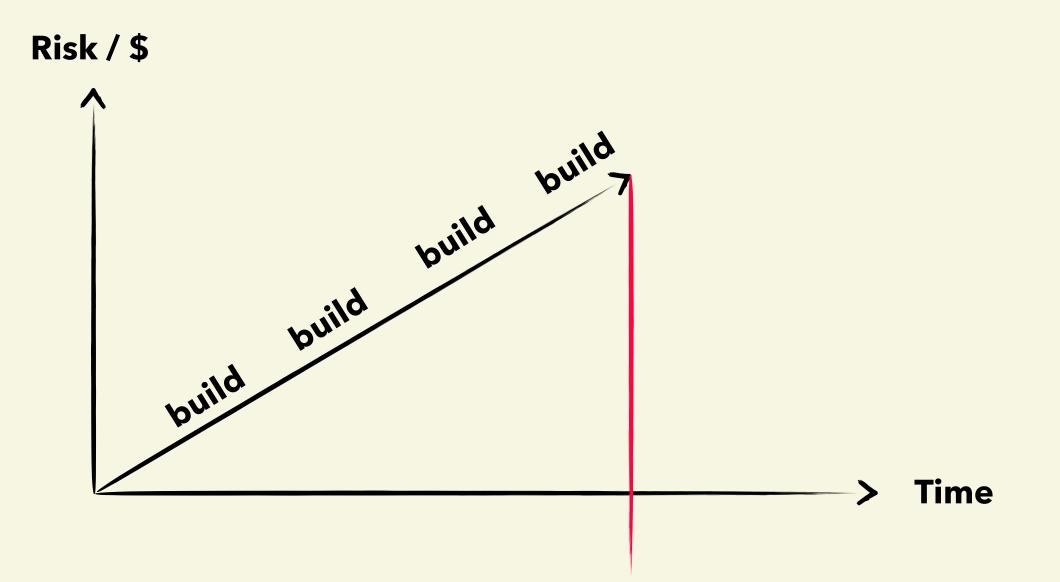
... towards a lean approach where resources are optimized and evidence from user testing takes the risk out of decision making.



### Lean approach

Low risk Multiple checkpoints for validation Multiple iterations Budget is progressively increased once hypotheses are validated Validation of individual hypothesis through multiple experiments

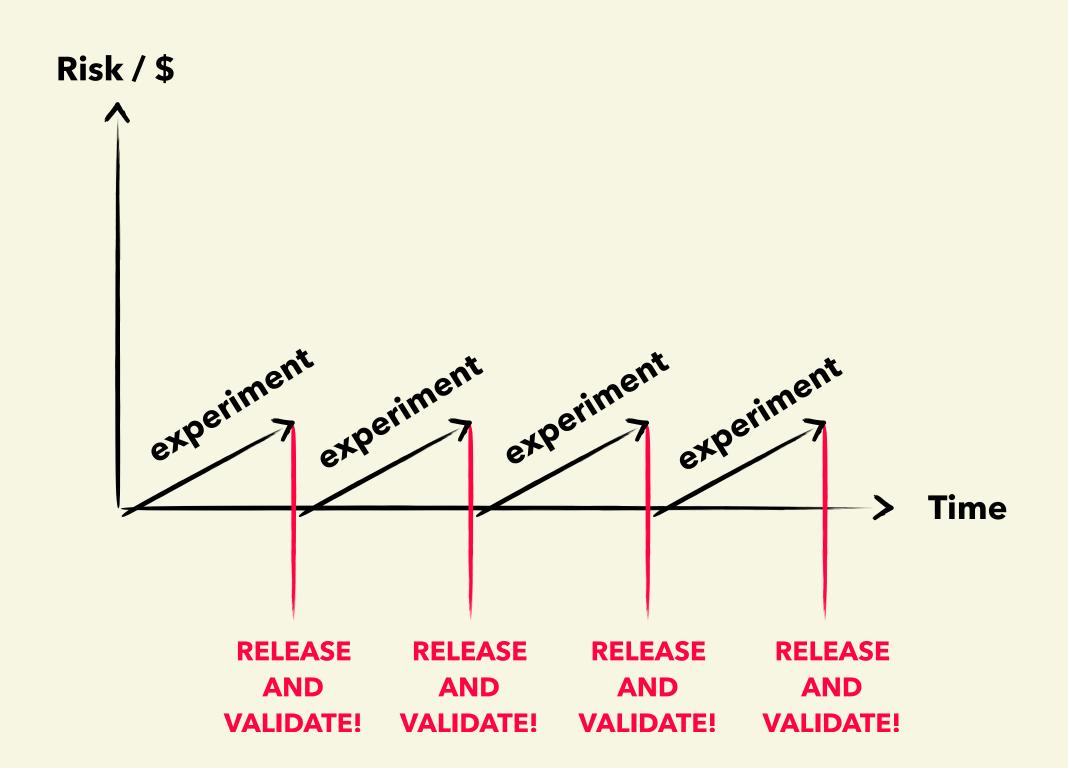




### **RELEASE AND VALIDATE!**

### Waterfall approach

High risk Validation of the business proposition at release Limited iterations Budget-consuming Validation of the whole concept at final release



### Lean approach

Low risk Multiple checkpoints for validation Multiple iterations Budget is progressively increased once hypotheses are validated Validation of individual hypothesis through multiple experiments



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# Validation step by step

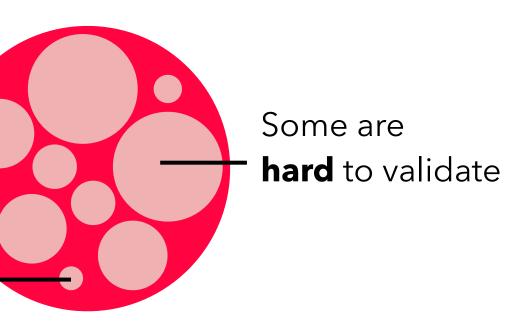


Some are **easy** to validate

### Step 1 **DEFINE YOUR FOCUS: WHAT DO YOU SEEK TO VALIDATE?**

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. Step 2 **MAP OUT YOUR ASSUMPTIONS, TO BE TESTED.** 

Regardless the stage you're in (problem) space, solution space, business or pricing models), you can now map out the assumptions. Tool: <u>Assumption Mapper</u>

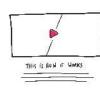




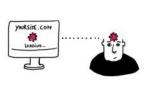


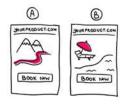














### **PRIORITIZE THE MOST CRITICAL ONES AND CONVERT THEM INTO HYPOTHESES READY**

Step 3 **CHOOSE AND DESIGN THE RELEVANT EXPERIMENTS TO TEST YOUR HYPOTHESES.** 

Once you have ranked your assumptions and defined key hypotheses you want to test, you can select the most suitable experiment(s) to test and validate (or reject) your hypotheses. Tool: <u>Experiment Card</u>





# **Step 1** Define your focus: what do you seek to validate?

He with



# What are you aiming to validate?

Experimentation is used primarily to learn faster by testing with real customers in order to understand how they will engage with your business idea. It is therefore crucial to **define what you are trying to** learn before launching an experiment.





# Which stage are you in?

Depending on the stage of the innovation funnel you're in, **you'll need to validate different elements** of your business proposition, so that you can pick different kinds of experiments.

- **Problems:** at the very > beginning of your innovation path, you'll need to test whether a problem you identified is a problem worth solving for your customer.
  - **EXAMPLE: DO PEOPLE HAVE A PROBLEM WITH LIGHTING IN THEIR HOME?**

- **Solutions:** does your offer solve this need and is the customer willing to pay?
  - **EXAMPLE: ARE PEOPLE** LOOKING FOR A LAMP WITH **A MOTION DETECTOR?**

- - solution.

**Features:** test core features that are crucial to adding value to your

**EXAMPLE: SHOULD THE** LAMP BE THIS BRIGHT?

Business model: test the viability of the solution you designed.

**EXAMPLE: WOULD ENERGY PROVIDERS BE INTERESTED** IN PARTNERING TO SELL **THESE ENERGY-SAVING** LAMPS?

**Pricing:** test the pricing model of your product or service.

**EXAMPLE: SHOULD YOU PAY** FOR THE LAMP (299€) OR FOR THE ENERGY PACKAGE THAT INCLUDES LAMPS AND **ENERGY?** 



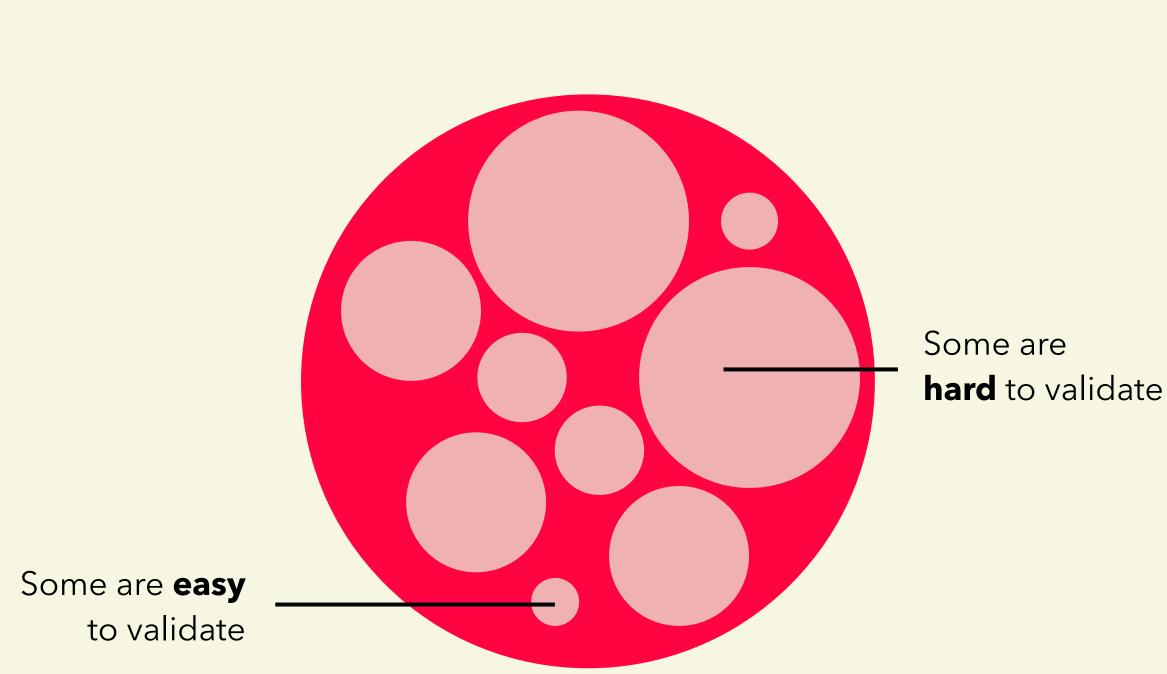


# Step 2

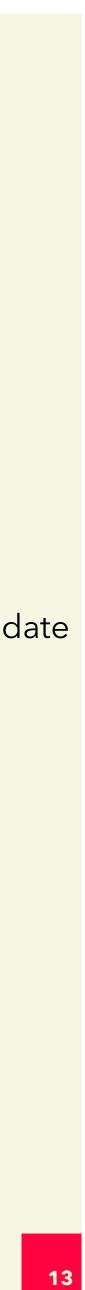
Map out your assumptions, prioritize the most critical ones and convert them into hypotheses ready to be tested



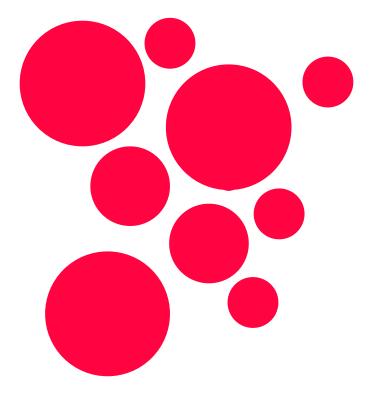
Regardless the stage you're in (problem space, solution space, business or pricing models), you can now map out the assumptions.

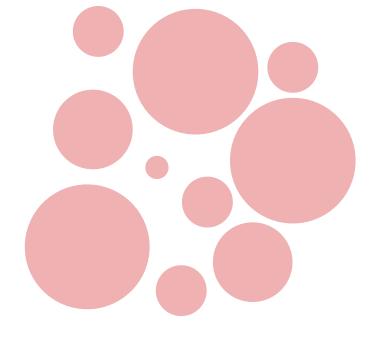


### **ALL YOUR ASSUMPTIONS**



Divide the assumptions into categories - it will help you focus on the assumptions that really matter.

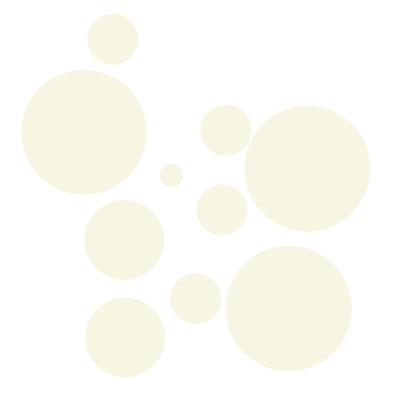




**Desirability** Client/user focus **Viability** Business model



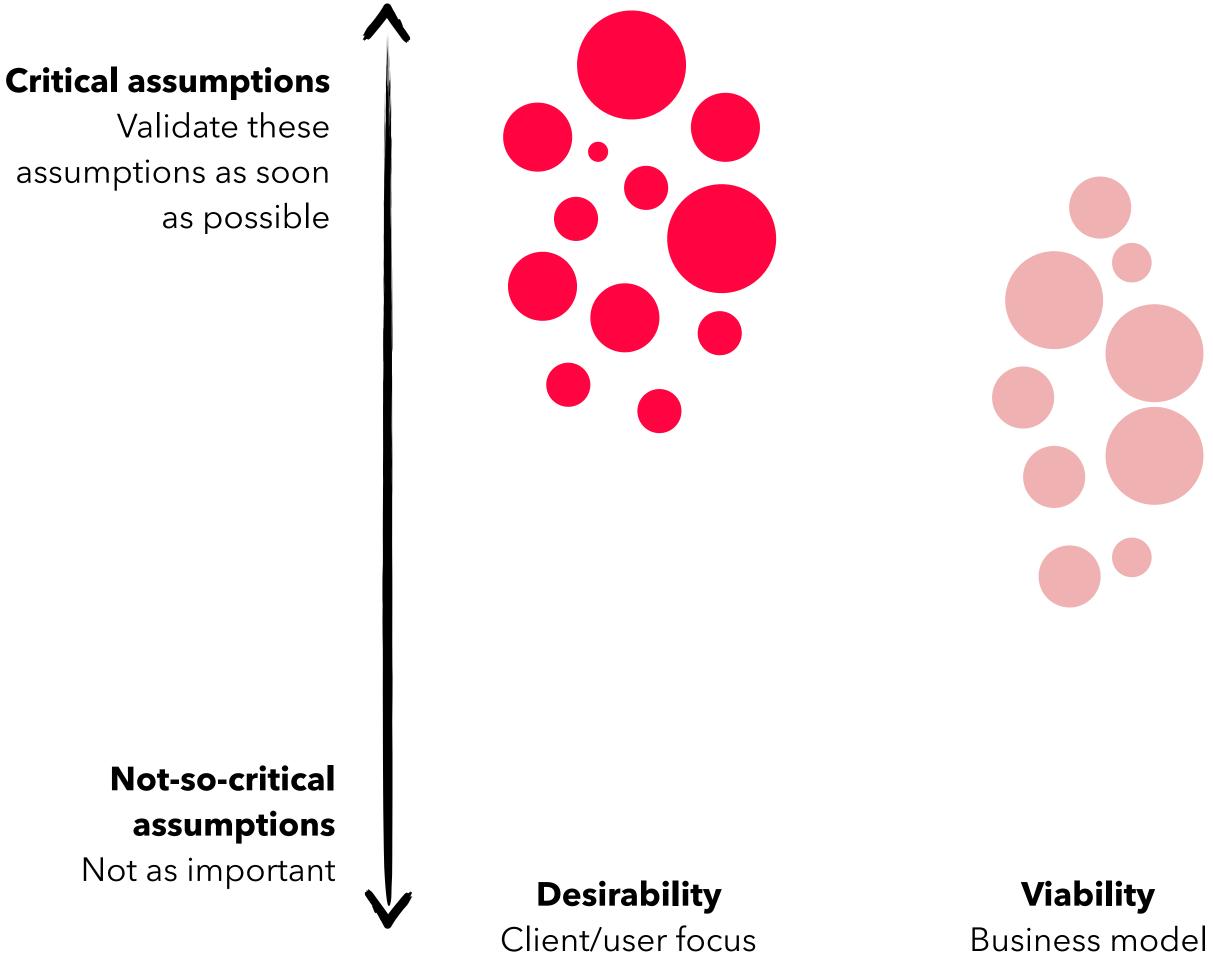




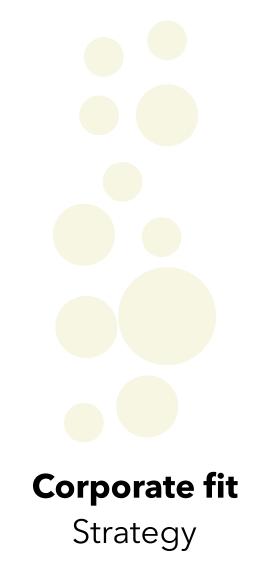
**Corporate fit** Strategy



Then, prioritize the validation of assumptions around user needs (desirability).



Feasibility Tech possibilities





To help you in the process of mapping out the assumptions around your new business concept, we designed the "Assumption Mapper". It helps you to:

- Categorize the assumptions of your business idea. Are your assumptions related to desirability, viability, feasibility or corporate fit?
- > **Prioritize** the assumptions of your business idea. Focus your energies on what really matters! First validate the important assumptions which are easy to answer. Then, move to the important assumptions which are more difficult to test. Leave the non-essential assumptions for later.





### **STEP 1**

Download this PDF and print it on an A2 sheet of paper. You can also draw the graph on a flip chart.

### **STEP 2**

Write down on post-its the assumptions of the business proposition you have in mind. Examples of assumptions for Airbnb in its early days could have been: guests are not afraid of sleeping in the house of strangers, hosts are not afraid of damages to their properties, and so on.

### **STEP 3**

Each person gets three votes for the most critical assumptions. Select the assumptions which received the most votes. Are these allocated mainly in the upper section of the graph?

### **STEP 4**

Having prioritized the most critical assumptions, you can now start validating the most relevant ones (aka. the ones that relate to desirability and viability, and which are easy to answer) - leaving the least important ones for later.





# **Converting assumptions** into hypotheses

Once you've mapped out the assumptions around the problem at hand (or solution, or business model, ...), convert the assumptions into hypotheses.

### **ASSUMPTION**

An assumption is something that we believe to be true without evidence to back it up.

### **HYPOTHESIS**

A hypothesis, by contrast, is an educated guess about what you expect to happen in a given experiment. Hypotheses should include a cause and effect "if ... then ... " statement plus a numeric, measurable target. It is important to clearly define your hypotheses with metrics that are able to guide actions.







## **Step 3** Choose and design the relevant experiments to test your hypotheses



# A one-page overview of your experiment

Your turn! Once you have mapped out assumptions and hypotheses, you can select the most suitable experiment(s) to test and (in)validate your hypotheses.

The "Experiment Card" helps you frame your experiments and focus on what really matters. It's crucial to define the definition of success so that you can decide whether or not to repeat, pivot, or proceed.





### **STEP 1**

Download this PDF and print it on an A4 sheet of paper.

### **STEP 2**

Write down the assumption you want to test with this experiment.

### **STEP 3**

Write down the type of experiment you think is most suitable to test the assumption at hand.

### **STEP 4**

Describe the experiment: what needs to be tested and how will you do it?

### **STEP 5**

Describe the target audience of the experiment.

### **STEP 6**

Outline the goal of your experiment. Describe the conditions under which the experiment will be considered successful.

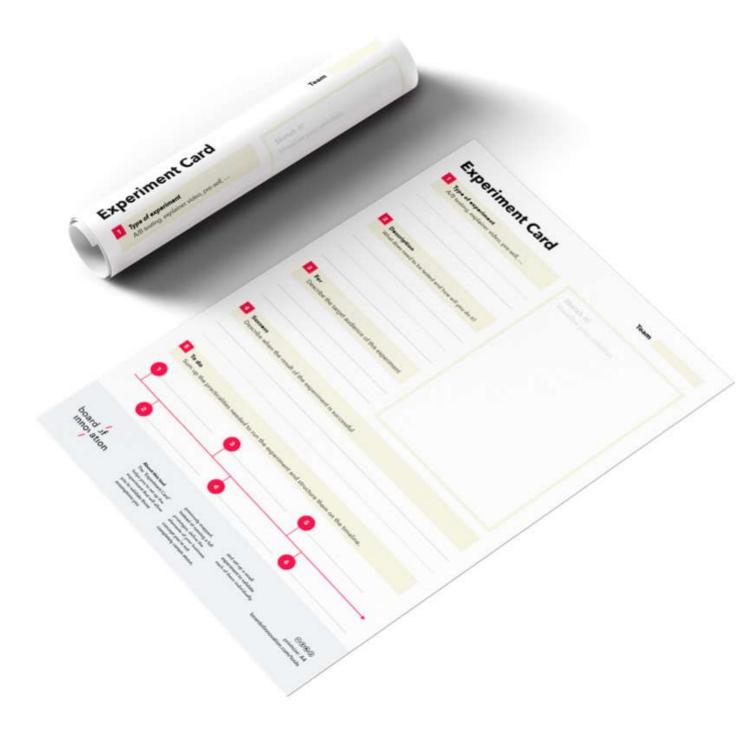
### **STEP 7**

Sum up the practicalities that need to be taken care of to do the experiment and structure them on the timeline.

**Pro-tip:** Don't forget to sketch your experiment setup!

### **STEP 8**

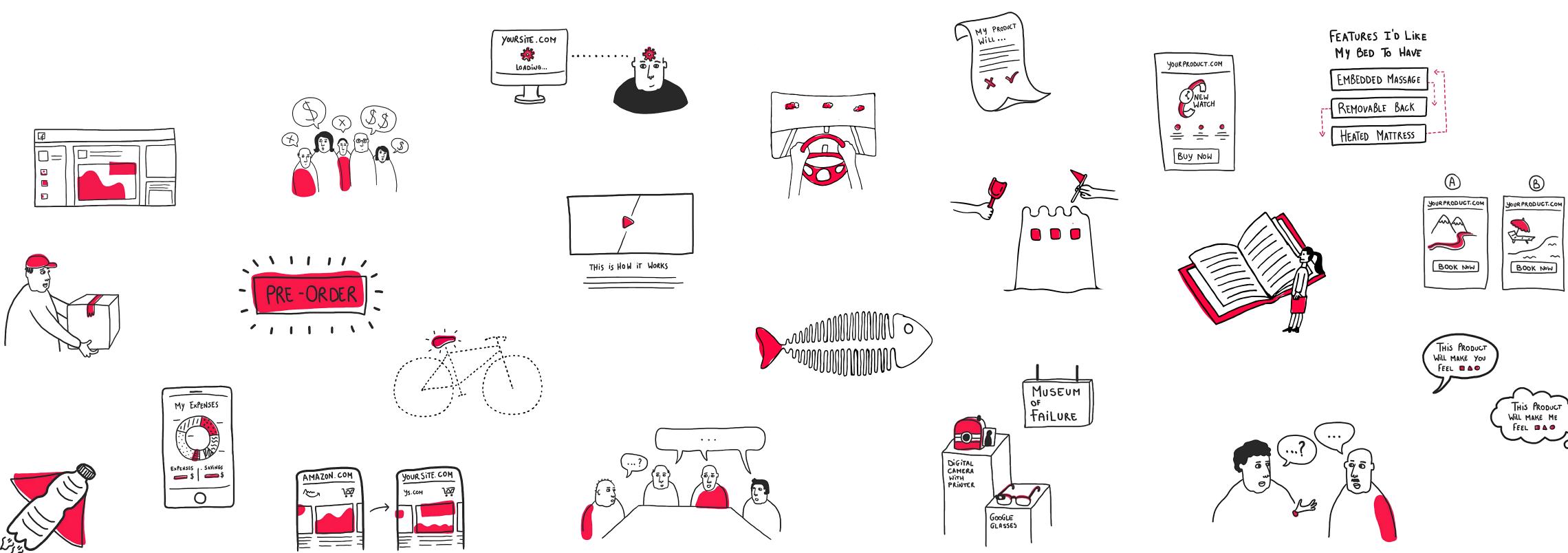
Lastly, after running the experiment, use the results box to indicate whether you confirmed/rejected your assumption. If confirmed, you can move on. If rejected, let the evidence guide you in making the decision whether to run another experiment, to pivot and review, or to proceed with caution (it could give you new learnings - it doesn't necessarily mean you have to review your concept and solve something straight away).





# Ready to go, but no idea where to start?

Here are 24 experiments you can use, plus real examples of how successful startups or corporates used them for validation purposes. **Mix and match them to discover powerful learnings!** 







# How to pick the right experiment?

### **PROS AND CONS**

Advantages and limitations of each experiment.

### TOOLS

Some ready-to-use services you will find helpful to get your experimentation started.

### CURRENCY

These are the metrics you'll need to measure in order to (in)validate your hypothesis. These results will reflect the interest/commitment of the market you are addressing.

### PROS

- + Informative insights
- + Moderate setup time

### CONS

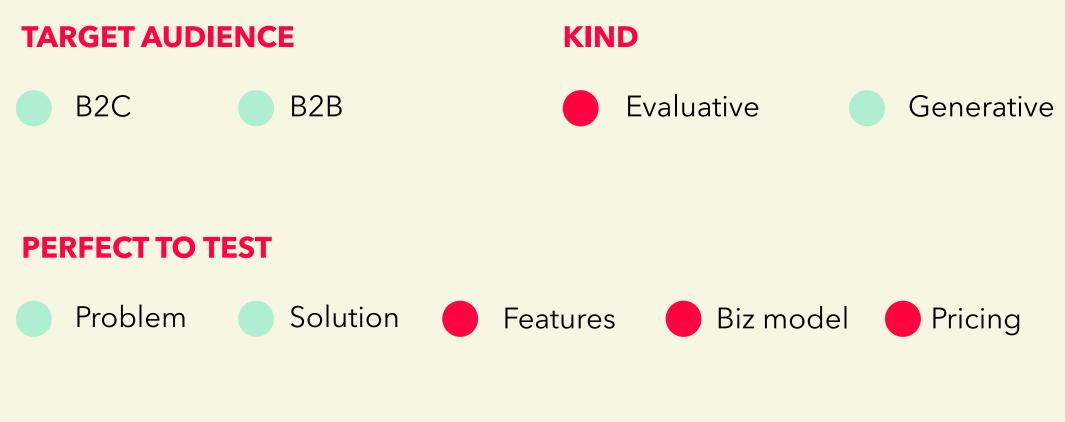
- Recruitment
- Effort required for analysis
- Unfocused evidence

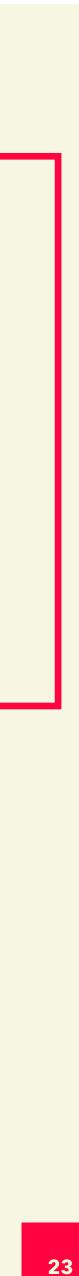
### TOOLS

<u>Trello</u> (free) lets you track and analyze your customer interviews as well as communicate research results.

### **CURRENCY**

Engagement Time





# How to pick the right experiment?

Very applicable

Somewhat applicable



Not applicable

### **TARGET AUDIENCE**

While most of the experiments can be used in any industry, some can only (or more easily) be applied to a B2C context.

### **KIND OF EXPERIMENT**

**Evaluative:** the experiment helps you evaluate a measurable hypothesis. **Generative:** the experiment helps you gather additional insights and signals.

### **PERFECT TO TEST...**

Different hypotheses require different experiments. For each experiment, we specify whether it is good (or not) to test:

- **Problems**: test whether the problem you identified is considered important by your target audience.
- **Solution**: test the desirability of the solution you've designed.
- **Features**: test specific features of your solution.
- **Business model**: test the viability of the solution you've designed.
- **Pricing**: test the pricing model of your product or service.

### **PROS**

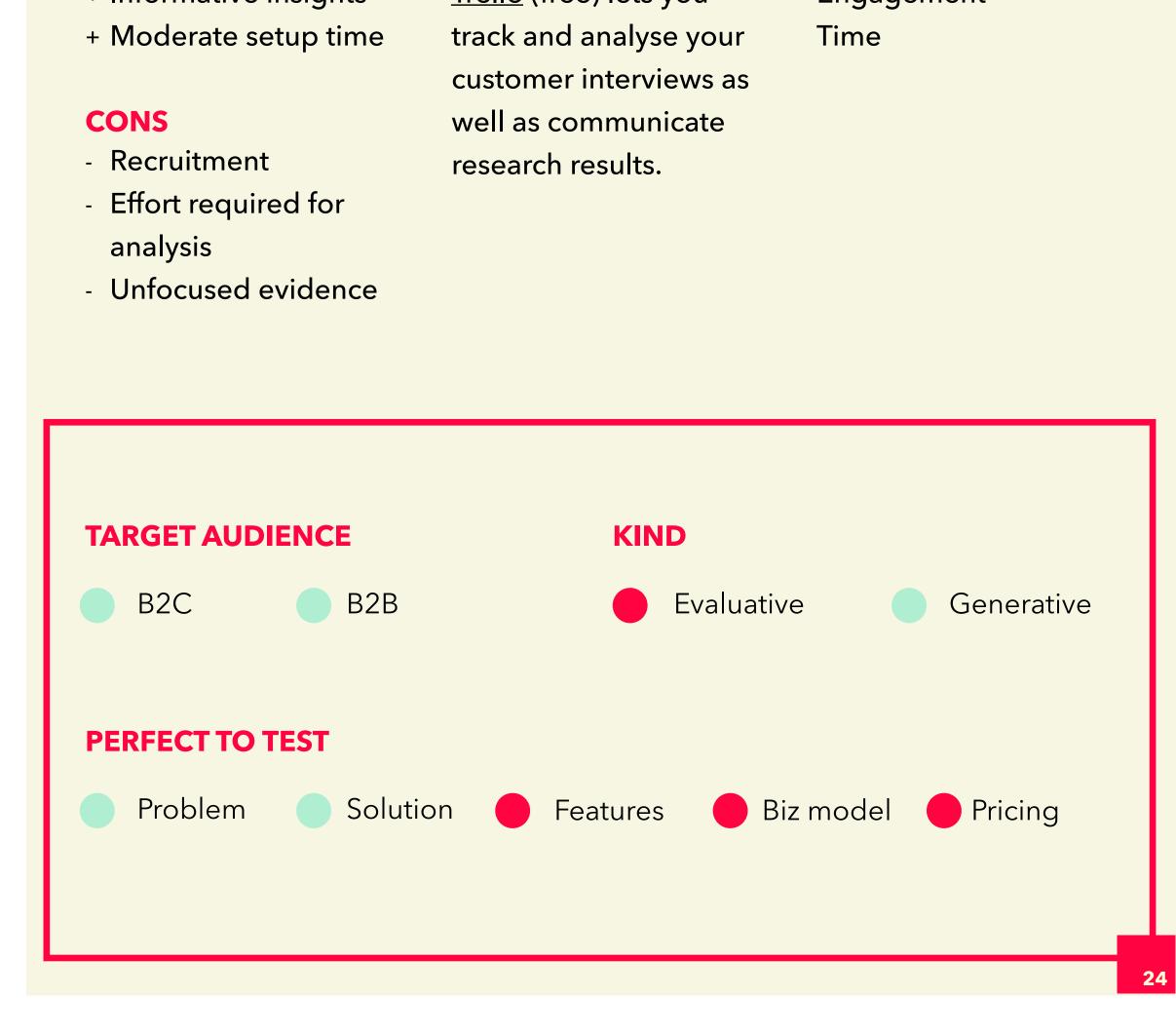
+ Informative insights

- analysis

### TOOLS

<u>Trello</u> (free) lets you

### **CURRENCY** Engagement



# 1. Picnic in the graveyard

Investigate the biggest failures in your industry and understand the reasons for them. What can you learn from Google Glass?





# Picnic in the graveyard

### INVESTIGATE THE BIGGEST FAILURES IN YOUR INDUSTRY AND UNDERSTAND THE REASONS FOR THEM. WHAT CAN YOU LEARN FROM GOOGLE GLASS?

This method is not about testing a hypothesis, rather, it is about generating ideas. Use the "picnic in the graveyard" approach to gather information on what has been tried and failed - and why. It involves contacting the people behind these unsuccessful ideas to get the true story and learnings from them.

### PROS

- + Simplicity
- + Learn from others

### CONS

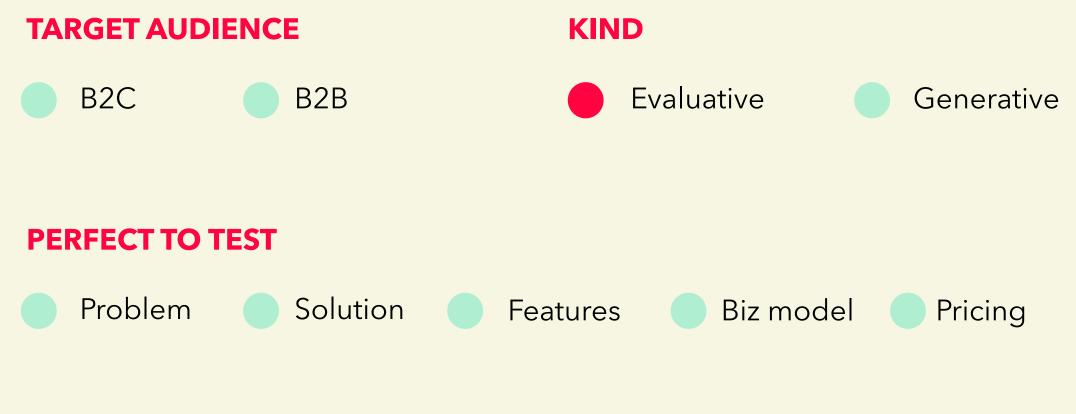
- Unstructured research

### TOOLS

Explore old products and old web pages of corporates by using <u>Archive</u>, the time machine of the web.

### CURRENCY

Engagement Past sales





# Picnic in the graveyard

# Hypothesis: how can we resurrect the promise of the Google Glass?

<u>Vuzix</u>, an American multinational technology firm headquartered in Rochester, New York, has been trying to resurrect the promise of Google Glass for years. Vuzix is a supplier of wearable display technology, virtual reality and augmented reality.

### **TEST CARRIED OUT BY**

Vuzix, a New York-based provider of AR solutions.

### **METRIC**

Tackling the pain points faced by Google Glass.

### **RESULTS**

Vuzix, similarly to other players in the AR arena, is overcoming the flaws of Google Glass by offering a different design and larger display. Other competitors are specializing in specific use cases (cycling glasses, sport glasses, game platforms, etc).

### **KEY TAKEAWAY**

Keep in mind the principle "either it already exists, or someone tried and failed". Before launching into the development of a new product or service, first look at those who have gone before you to prevent making the same mistakes.

### Example

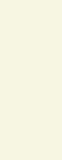




# 2. Existing data

What information do you already have that you can leverage?





# Existing data

### WHAT INFORMATION DO YOU ALREADY HAVE THAT YOU CAN LEVERAGE?

Secondary research consists of existing data such as the Internet, books, articles, or previous studies. This information can be used to strengthen insights from primary research. It can also be a starting point of a design challenge to help identify the problems or basic needs of a large, unknown market.

**Note:** While secondary research can be useful, **it is no substitute for primary research**. Prioritize creating new data through direct user interactions including interviews, focus groups, observation, questionnaires, etc.

### PROS

CONS

driven

- + Often already exists
- + Good for projects within a strategic scope

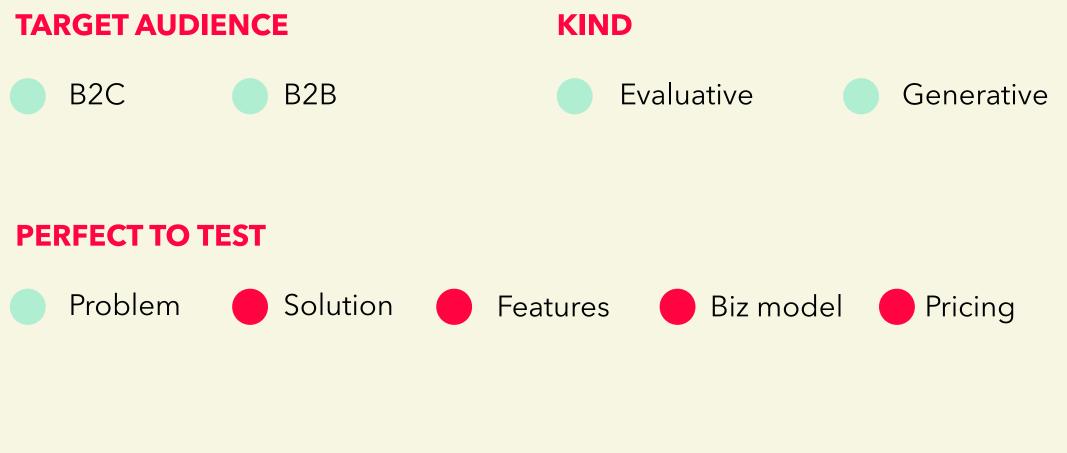
- Not user-centric

- Highly assumption-

### TOOLS

Internet Research studies Existing data Articles

### **CURRENCY** Evidence of trends





# 3. Generative session

Use generative research as a qualitative approach to look for clearer signals about the customer.







# Generative session

### USE GENERATIVE RESEARCH AS A QUALITATIVE APPROACH TO LOOK FOR CLEARER SIGNALS ABOUT THE CUSTOMER

Generative sessions don't necessarily start with a hypothesis, but are used to learn more about your user and their problems, habits, and in which context they operate. For these sessions, it is key to be in the same room with the participant and focus on open questions that dig deeper into the motivational drivers, while also observing the contextual environment. For this approach, start by stating your research goals clearly and then actively listening to the customer's responses. Following the session, make sure to book time for the analysis and synthesis of the research, which is just as important.

### PROS

- + Informative insights
- + Medium setup time

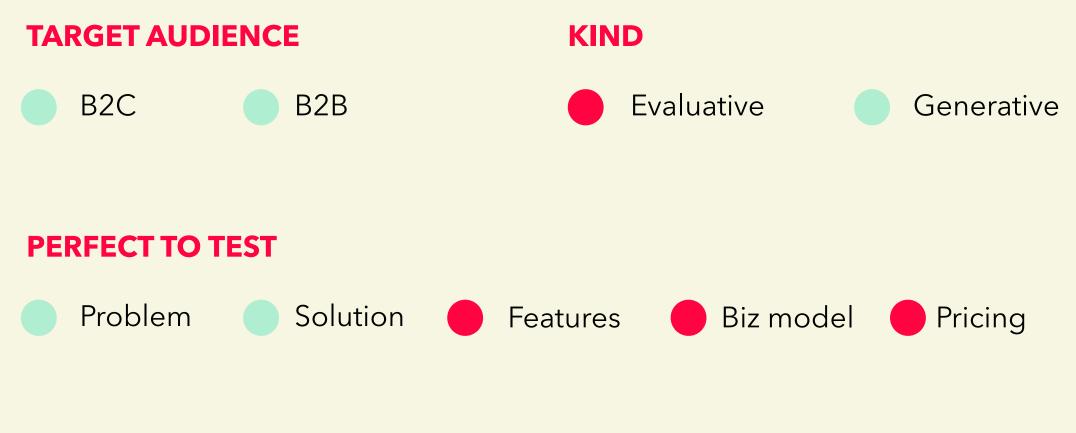
### CONS

- Recruitment
- Effort required for analysis
- Not-focused evidence

### TOOLS

<u>Trello</u> (free) lets you track and analyze your customer interviews as well as communicate research results.

### **CURRENCY** Engagement Time





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# **Generative session**

### Hypothesis: what factors play a role in the process of choosing an educational program?

<u>The HU University of Applied Sciences Utrecht</u> planned to redesign their website. Relevant user insights were needed in order to make the website play a role in the process of choosing an educational program.

### **TEST CARRIED OUT BY**

The HU University of **Applied Sciences Utrecht.** 

### **METRIC**

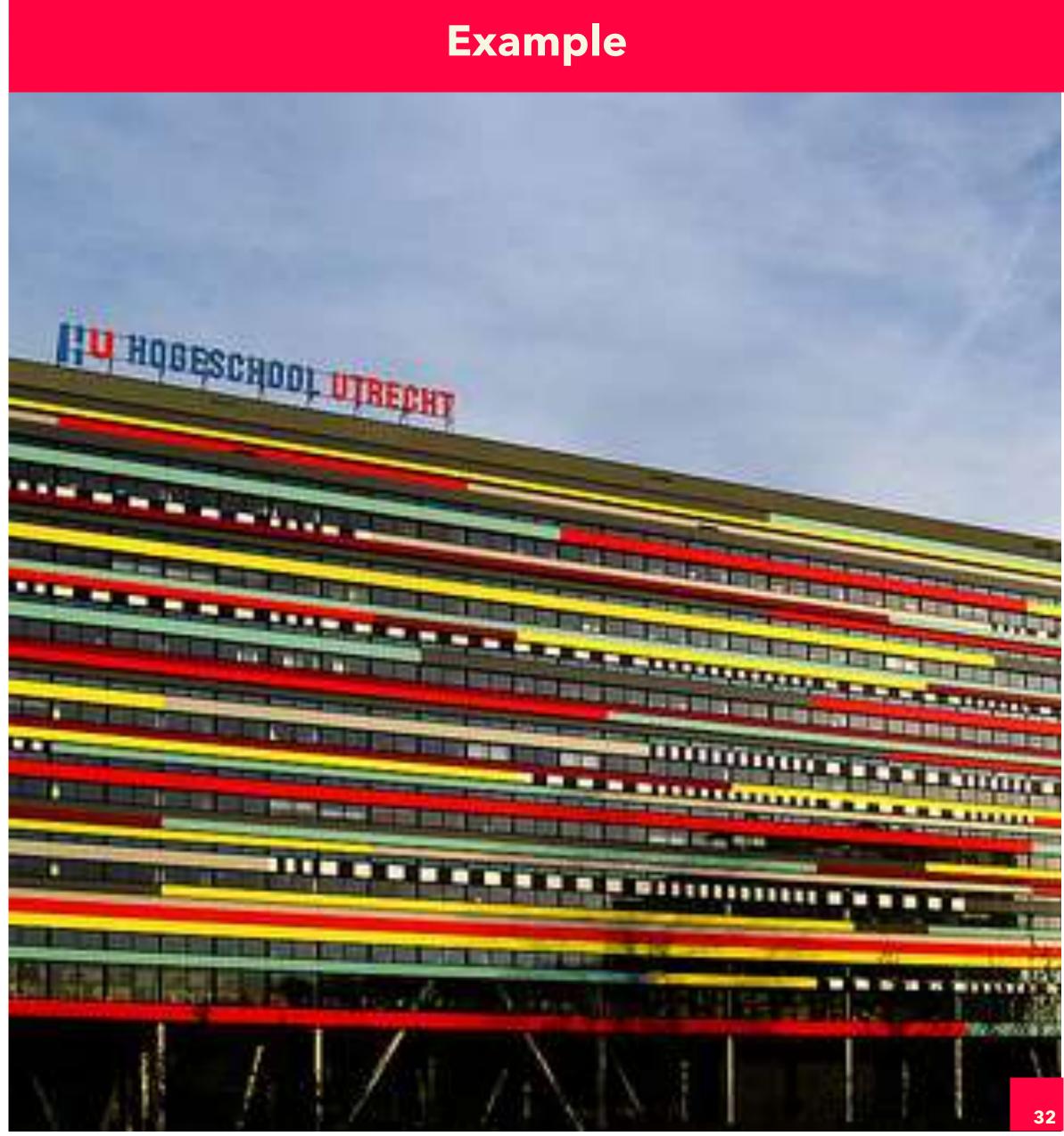
Map all kinds of latent needs and desires of the people who are planning to participate in an educational program in the near future.

### RESULTS

By providing the participants with a set of hands-on exercises, the university was able to gain insight into potential students' decision making. These insights later served as the foundation for the website redesign.

### **KEY TAKEAWAY**

Look beyond first impressions and get a deep understanding of what your users know, feel and dream.



# 4. Customer interview

Leave the building to actively learn through real, in-person interactions with customers.





# **Customer interview**

### LEAVE THE BUILDING TO ACTIVELY LEARN THROUGH REAL, IN-PERSON INTERACTIONS WITH CUSTOMERS

Customer interviews find out whether you are addressing a real need and solving a real problem. Alternatively, use these oneon-one interactions to gain insights into whether your solution actually resonates with your customers. The key is identifying key customers to talk to (extreme users on both ends of the spectrum), and developing your interview scripts in a way that elicits customer stories.

**Pro-tip:** To help you with your interviews, Board of Innovation has <u>problem</u> and <u>solution validation</u> checklists you can download from our site.

### PROS

- + Depth insights/ feedback
- + Speed of set up

### CONS

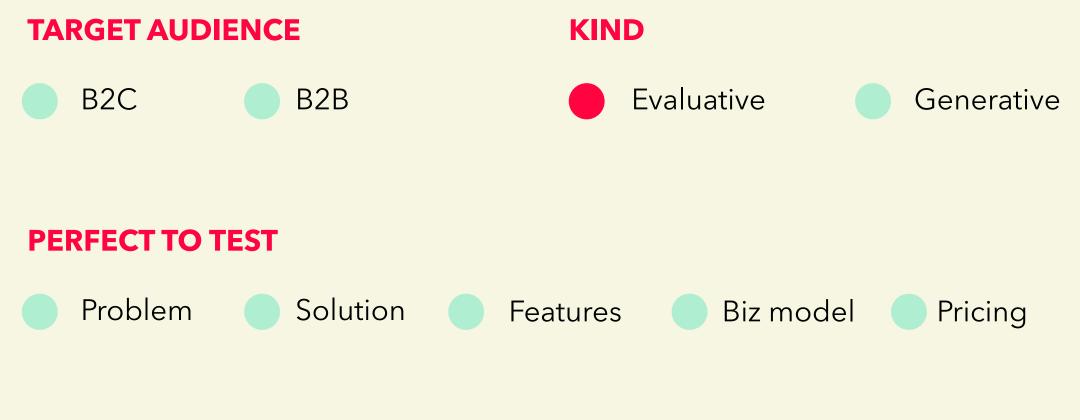
- Recruiting participants
- Measurability

### TOOLS

<u>Trello</u> (free) lets you track and analyze your customer interviews as well as communicate research results.

### CURRENCY

Satisfaction Engagement Time





- 24

# **Customer interview**

### Hypothesis: can Niko play upon the smarthome trend?

<u>Niko</u> is the market leader in Belgium in terms of switchgear. To keep their leading position, they used customer interviews to generate insights about customers' interest in Smart home solutions.

### **TEST CARRIED OUT BY**

Niko, the European reference in electrotechnical solutions and services.

### **METRIC**

The attitudes, motivations or experiences that are highlighted by the interviewee.

### RESULTS

The interviews gave a better overview of the relevant groups to target with smart-home technology; their daily life and specific reasons for certain actions.

### **KEY TAKEAWAY**

Conduct interviews to grasp meaning and gain a deep understanding of the social/living environment of the customers.

### Example





# 5. Comprehension test

Does your customer understand the message? Eliminate false negative biases before testing commitment by evaluating comprehension.





## **Comprehension test**

DOES YOUR CUSTOMER UNDERSTAND THE MESSAGE? ELIMINATE FALSE NEGATIVE BIASES BEFORE TESTING COMMITMENT BY EVALUATING COMPREHENSION

Comprehension tests are simple to run and usually take less than an hour. The aim is to test if at least 80% of your customers understand your message. Sample sizes of your test group should generally be around 20 people and don't need to be target customers. You are testing the understanding of your value proposition, not whether they are interested in it.

#### PROS

- + Simplicity
- + Speed
- + Both qualitative and quantitative

#### CONS

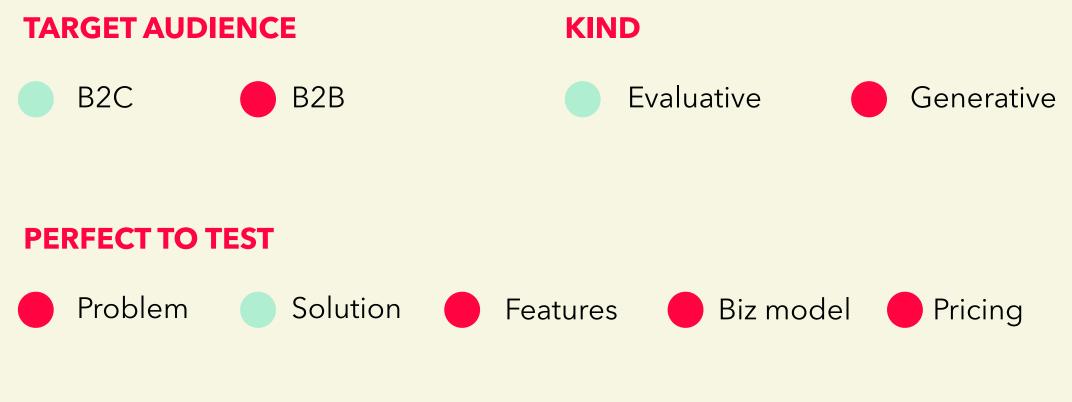
 Not on target customer

#### TOOLS

<u>Kromatic</u> designed a simple card to track comprehension test activities.

#### CURRENCY

Attention Comprehension Engagement





# **Comprehension test**

### Hypothesis: do customers understand our value proposition?

Walmart, the American retail giant, is known for its powerful value proposition "Save money. Live better." In order to come to this value proposition, they tested it by writing down their value proposition in 1-3 sentences, showing this to participants for a few moments (just enough to read it) and then taking it away and asking the participants to explain it in their own words.

#### **TEST CARRIED OUT BY**

America's giant retail player Walmart.

### **METRIC**

If the explanation of the participant is roughly comparable to the one Walmart postulated, they counted it as a positive result. If not, it was negative.

### **RESULTS**

By repeatedly performing this test, Walmart narrowed down their value proposition to the existing one.

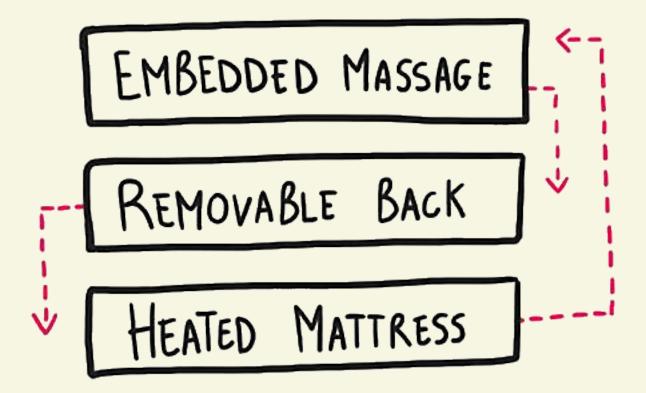




# 6. Feature sorting cards

Use sorting cards to find patterns that help to understand user priorities.

### FEATURES I'D LIKE My BED TO HAVE





## Feature sorting cards

### USE SORTING CARDS TO FIND PATTERNS THAT HELP TO UNDERSTAND USER PRIORITIES

Feature sorting cards are an easy and reliable way to get valuable insights into how your features should be organized to meet the expectations of your target group. Start by defining a list of priorities and then create cards with clear descriptions. Use the cards to provide insight into users' mental models. Find out what matters most to your customers by having them sort topics into groups that make sense to them. The key here is to make the most out of interpreting the results by categorizing and identifying patterns.

**Pro tip:** Keep the cards to less than 40 to avoid overwhelming your participants.

#### PROS

- + Simplicity
- + Structure
- + Focus patterns

#### CONS

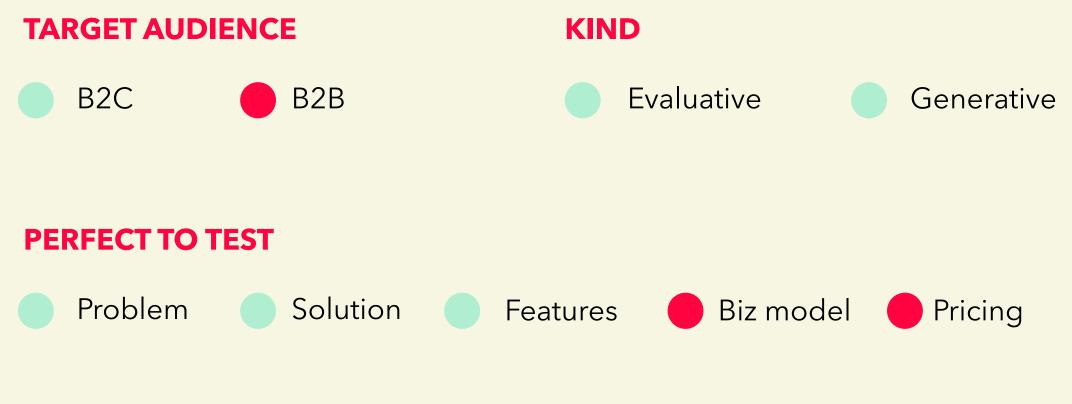
- Hosting a test session
- Won't necessarily correspond to real life behavior

#### TOOLS

<u>OptimalSort</u> (starting at 166\$/month) and <u>Usabilitest</u> (free trial) let you create cards and test them online with instant result analysis.

#### CURRENCY

Satisfaction Engagement Time





## Feature sorting cards

### Hypothesis: which sensors should a smartbed have?

<u>Haelvoet</u> has been an authority in the production of hospital and nursing home furniture for more than 80 years. Due to the ageing population, Haelvoet wants to get a clear view on the essential sensors needed in a smart-bed. They used card sorting to prioritize the essential sensors during in-depth interviews with nurses, care providers and purchasing managers.

#### **TEST CARRIED OUT BY**

Haelvoet, producers of hospital and nursing home furniture.

#### **METRIC**

The ranking of desired features

#### RESULTS

The exercise of sorting cards during the in-depth interviews indicated that the following three sensors are the most desired: out-of-bed detection, scales and automatic under-bed light.

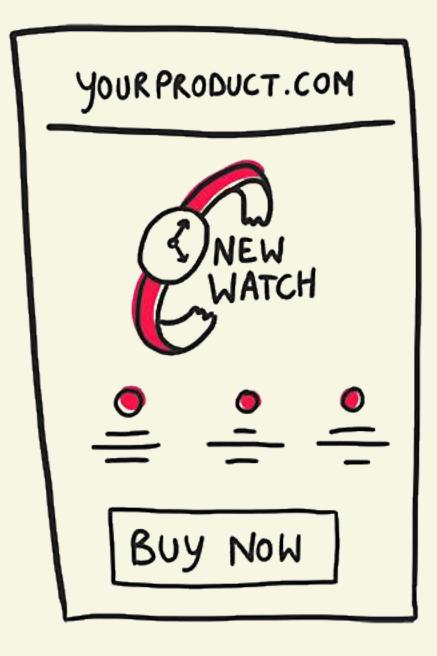






# 7. Wireframe

Test the usability of your digital products with digital wireframes.





## Wireframe

### TEST THE USABILITY OF YOUR DIGITAL PRODUCTS WITH DIGITAL WIREFRAMES

Digital wireframe prototypes act as a limited simulation of your solution idea for the user to interact with. The schematic 'blueprint' acts as a static visual guide that can help you identify potential problems that you may not have perceived, and reveal elements that are not intuitive to your users.

#### PROS

- + Simplicity
- + Cost effectiveness

#### CONS

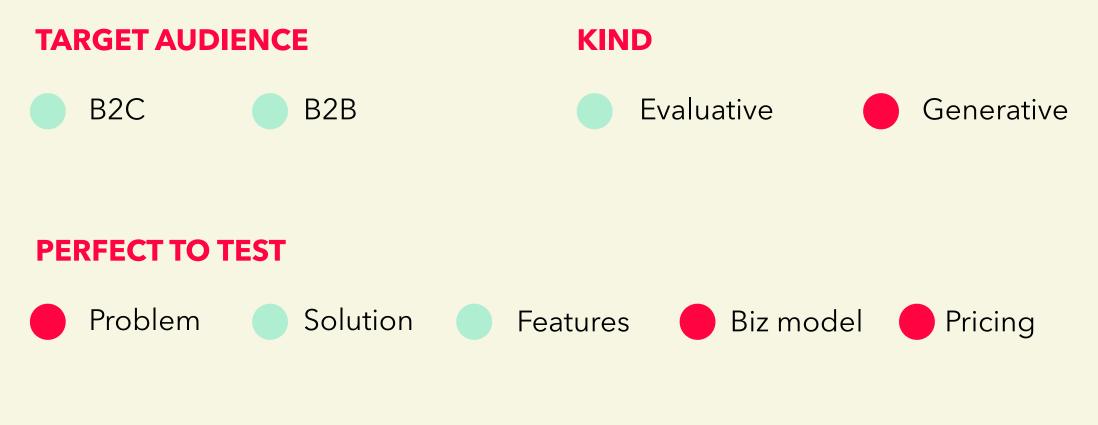
- Weaker evidence

#### TOOLS

<u>Sketch</u> (starting 99\$/ year) and <u>Balsamiq</u> (starting 90\$/year) are great for wireframes and <u>Invision</u> (freemium) let you design and test your digital prototypes.

#### CURRENCY

Engagement Time Attention





# 8. App mockup

Create a clickable/tappable prototype of an App or a digital service.





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# App mockup

### **CREATE A CLICKABLE/TAPPABLE PROTOTYPE OF AN APP OR A DIGITAL SERVICE**

Multiple services today let any designer - or even people with (almost) no design experience - create a prototype of an app, no coding needed. The advantage: iterations and refinements can be tested by users prior to starting development. By presenting an app with only simple home page and sign-up flows, users have the opportunity to experience your ideas and concepts and give valuable feedback on your mobile application. Using these behavioral insights can save you time and money in the development phase.

#### **PROS**

+ Simplicity

+ Speed

#### CONS

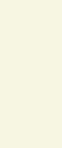
- Requires high amount of users

### TOOLS

<u>UXPin</u> **InVision** Proto.io POP app

### **CURRENCY** Conversion rate (%)





# 9. Physical prototype

Test and evaluate your potential solution by building a low-fidelity physical prototype for customers to interact with.





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# Physical prototype

### **TEST AND EVALUATE YOUR POSSIBLE SOLUTION BY BUILDING** A LOW-FIDELITY PHYSICAL PROTOTYPE FOR CUSTOMERS TO **INTERACT WITH**

Once you have identified a problem worth solving, turn your collected insights into a tangible prototype or mockup that can be used to present your potential solution to a customer. You may think of car manufacturers that use advanced forms of prototyping, or Dyson, that notoriously went through 5,127 prototypes for its bestselling cyclonic vacuum cleaner. But what we're referring to is prototyping at much earlier stages. For example, you could prototype a self-service pharmacy by using paper boxes, and by placing an actor inside the box to "perform" the expected actions.

#### **PROS**

- + Simplicity
- + Speed
- + De-risk

#### CONS

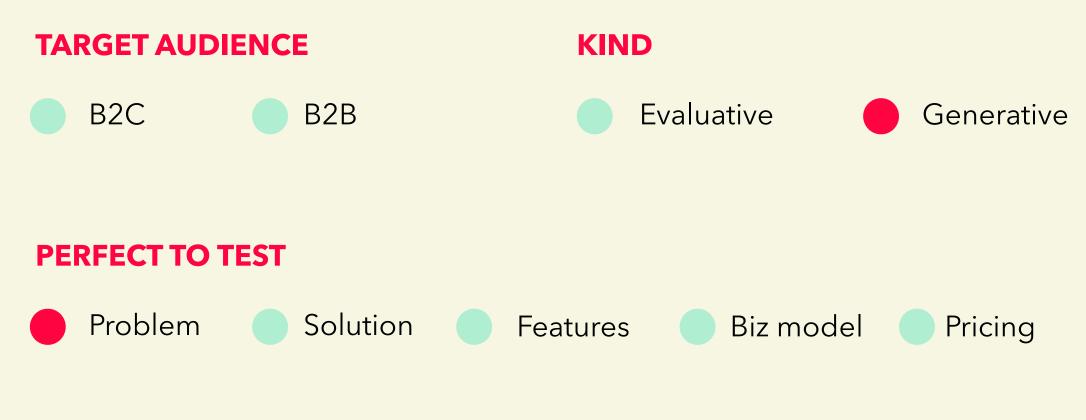
 Potential for biased responses

#### TOOLS

Make use of recycled materials, paper etc. to build a physical representation of your solution. Or simply sketch it out using markers and templates.

#### **CURRENCY**

Engagement Time

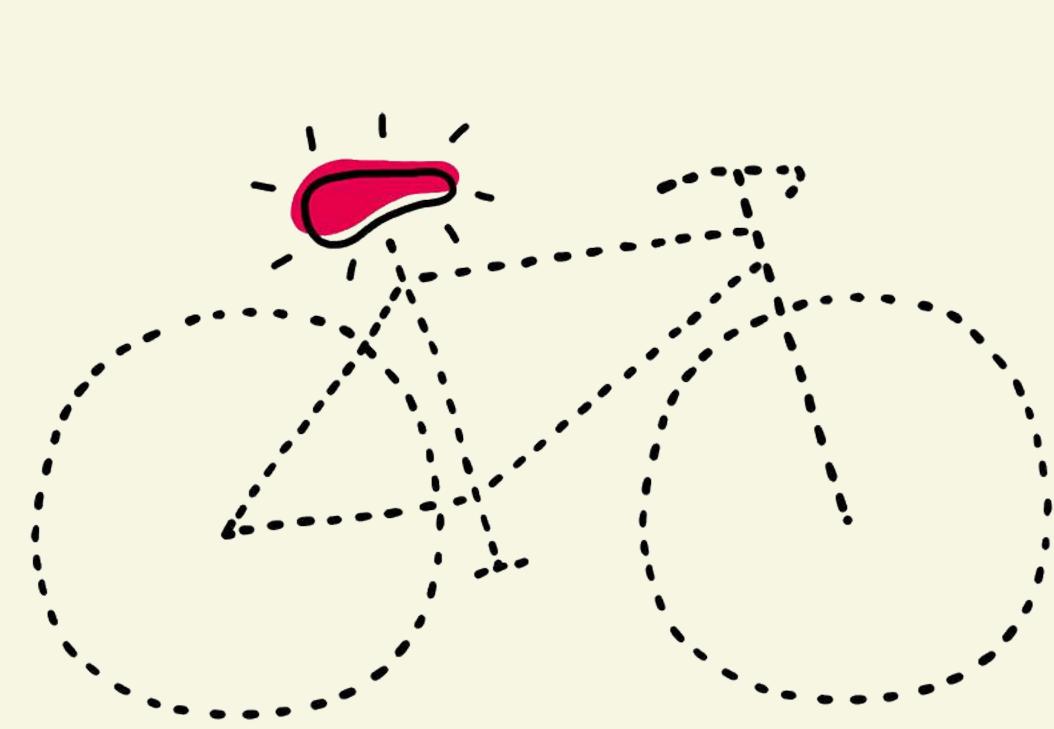






# **10. Single-feature MVP**

Test your most crucial assumptions with a single feature MVP.





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# Single-feature MVP

### TEST YOUR MOST CRUCIAL ASSUMPTIONS WITH A SINGLE FEATURE MVP

Avoid mega-concepts and unclear conclusions by testing a single-feature minimum viable product (MVP). Some of the most successful concepts started out with a single, simple feature think of Google or Dropbox. A single feature MVP focuses on one aspect of a larger concept. Why do so? To have the statistical guarantee that it's that specific feature being validated (and not other ancillary components of the offering).

**Pro Tip:** A common next step is building a bare bones MVP.

#### PROS

- + Simplicity
- + Gives focus
- + Easy to explain
- + Speed

#### CONS

- Need multiple tests
- Adjust assumptions
- Not always a signal of product-market fit

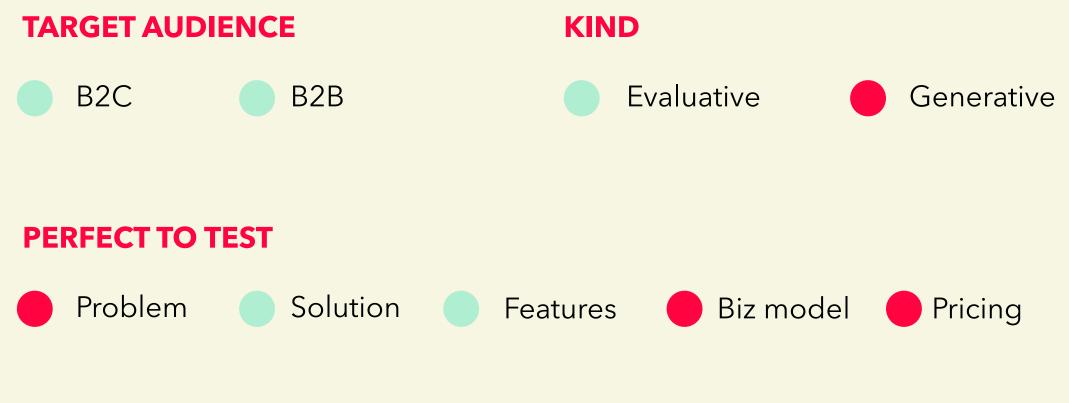
#### TOOLS

Anything you can find! **Physical:** cardboard, glue, paper, wood, 3D printed parts. **Digital:** interface

#### actions.

#### **CURRENCY**

Satisfaction Engagement Time





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# Single-feature MVP

# Swiping left/right is a feature that Tinder introduced into an overly crowded chat/ dating online market.

<u>Tinder</u>, with its 20 billion matches to date, is the world's most popular app for meeting new people. It's no mystery its popular UI design feature of swiping right (like) or left (dislike), and the fact that only people who mutually liked each other could match.

#### **TEST CARRIED OUT BY** Tinder

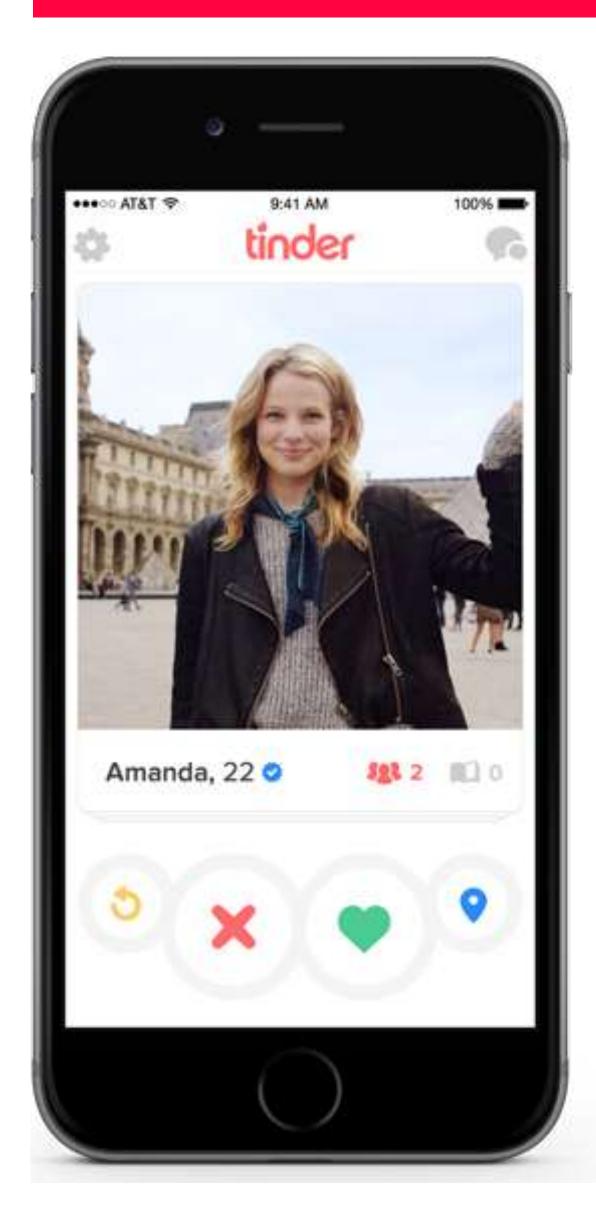
#### **METRIC**

You can only like (swipe right) or dislike (swipe left) another person.

### **KEY TAKEAWAY**

If you have one crucial hypothesis to test, try limiting your MVP to the essential.

### Example







## **11. Bare bones MVP**

Use the tools you have to create a working prototype to test key features.



### Bare bones MVP

### USE THE TOOLS YOU HAVE TO CREATE A WORKING PROTOTYPE TO TEST KEY FEATURES

A bare bones minimum viable product (MVP) allows you to test your product with potential customers and convince them to pay for it before fully building it. You can build a bare bones MVP with whichever tools are available that allow you to build multiple real features and functionalities that you need to validate. A bare bones MVP is suitable for software solutions. It is often the next step after testing a successful single-feature MVP.

#### PROS

- + Direct customer interactions (relationship
- building)
- + Gain understanding
- + Quick to build
- + Easy to build

#### CONS

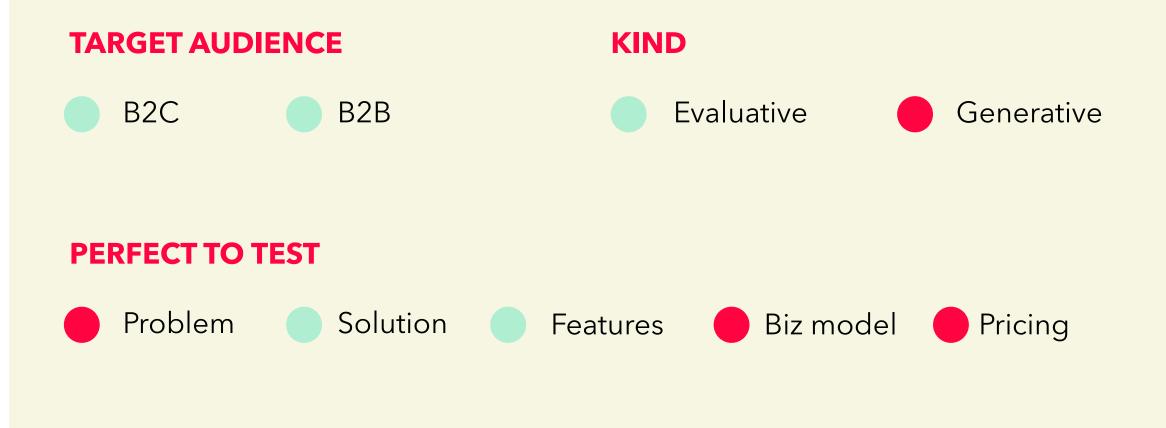
 Difficult to quickly build real solution to customer expectations

#### TOOLS

- <u>Excel</u>
- <u>Access</u>

#### **CURRENCY**

Payment Engagement Time





## **Bare bones MVP**

### **Create a basic Excel version to test features** before investing in full development.

The concept of <u>Psykler</u>, a customer intelligence solution provider that helps users build more effective business relationships using psychometric profiling, was first validated with a bare bones MVP prototype built using Excel spreadsheets. The prototype used macros to validate and refine key features.

#### **TEST CARRIED OUT BY**

Psykler

### **METRIC**

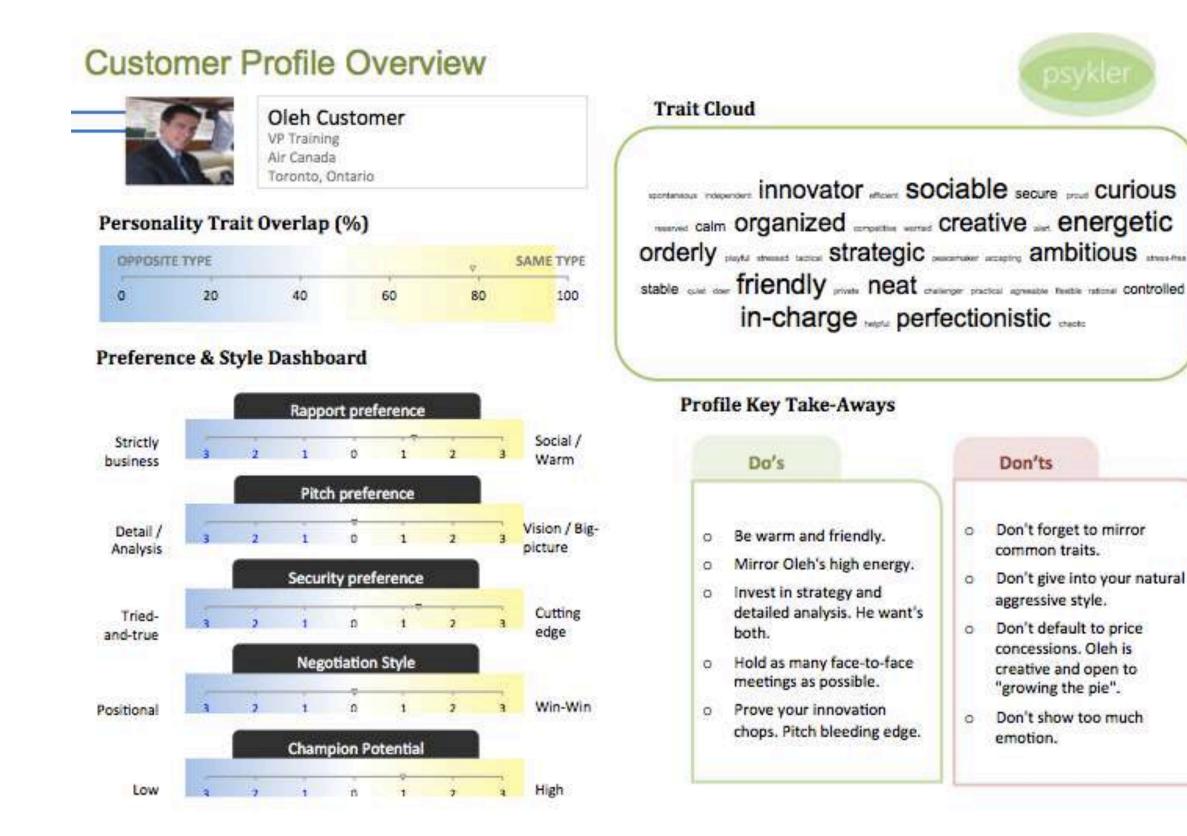
The number of presales The number of interested customers

#### **KEY TAKEAWAYS**

A bare-bones MVP allows:

- > Clearer estimation of real demand
- > Clearer understanding of feature development
- > Cash-in

### Example





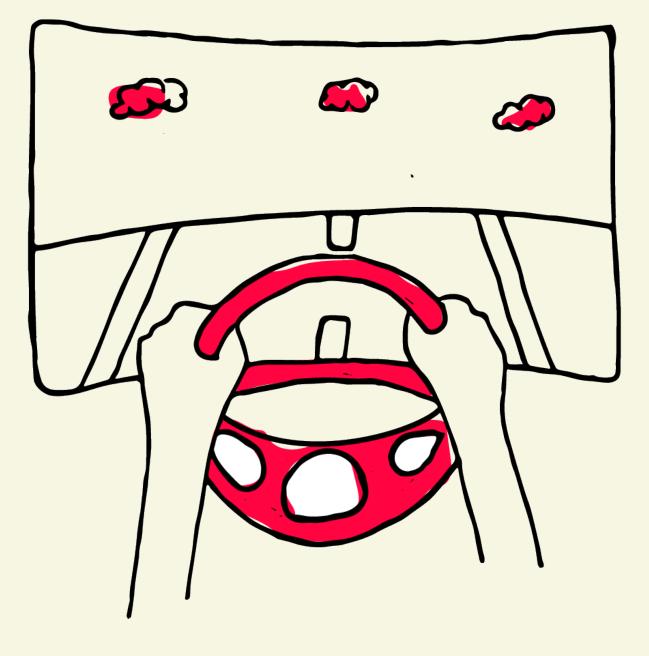


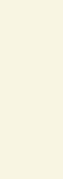




# 12. Product simulation

Create digital models to virtually simulate product features and make evidence-based decisions.





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## **Product simulation**

### CREATE DIGITAL MODELS TO VIRTUALLY SIMULATE PRODUCT FEATURES AND MAKE EVIDENCE-BASED DECISIONS.

Product simulation is a powerful technique for understanding possible features and functionalities of your product before development. Software can be used for mechanical simulation, computational fluid dynamics, plastic injection moulding, composite materials, structural, manufacturing simulations, and more.

Simulation enables companies to quickly evaluate new ideas and should be used early in the design process to avoid rework, lost cycle time or significant expenses. Simulation tools are typically offered as stand-alone software, or as CAD-integrated software. Research which tools are most suited to your product.

#### PROS

- + Good for uncertain products
- + Good for complex products
- + De-risk
- + Test feature capabilities

#### CONS

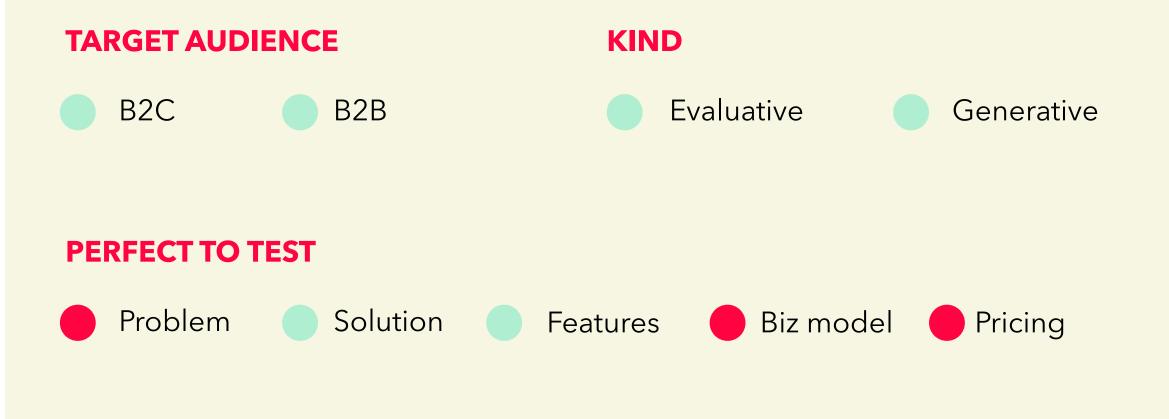
- Cost of software
- Technical expertise
- needed
- Not always a signal of product-market fit

#### TOOLS

AutoCAD Solidworks Creo CATIA NX CAD

#### CURRENCY

Attention Sales/Investment





## **Product simulation**

# Create digital models to virtually simulate product features.

Johnson Screens is a leading brand for screens used in industrial filters, water wells and architecture. The company used simulation software to verify the airflow through their architectural radiator grille that would be used in a New York skyscraper. With an 18-minute virtual test, the team was able to find an accurate measure of the pressure drop and provide flow contour visualizations for their customer. The same analysis with a physical experiment would have cost \$7,000-\$15,000 and required a few months of time.

#### **TEST CARRIED OUT BY**

Johnson Screens

#### **METRIC**

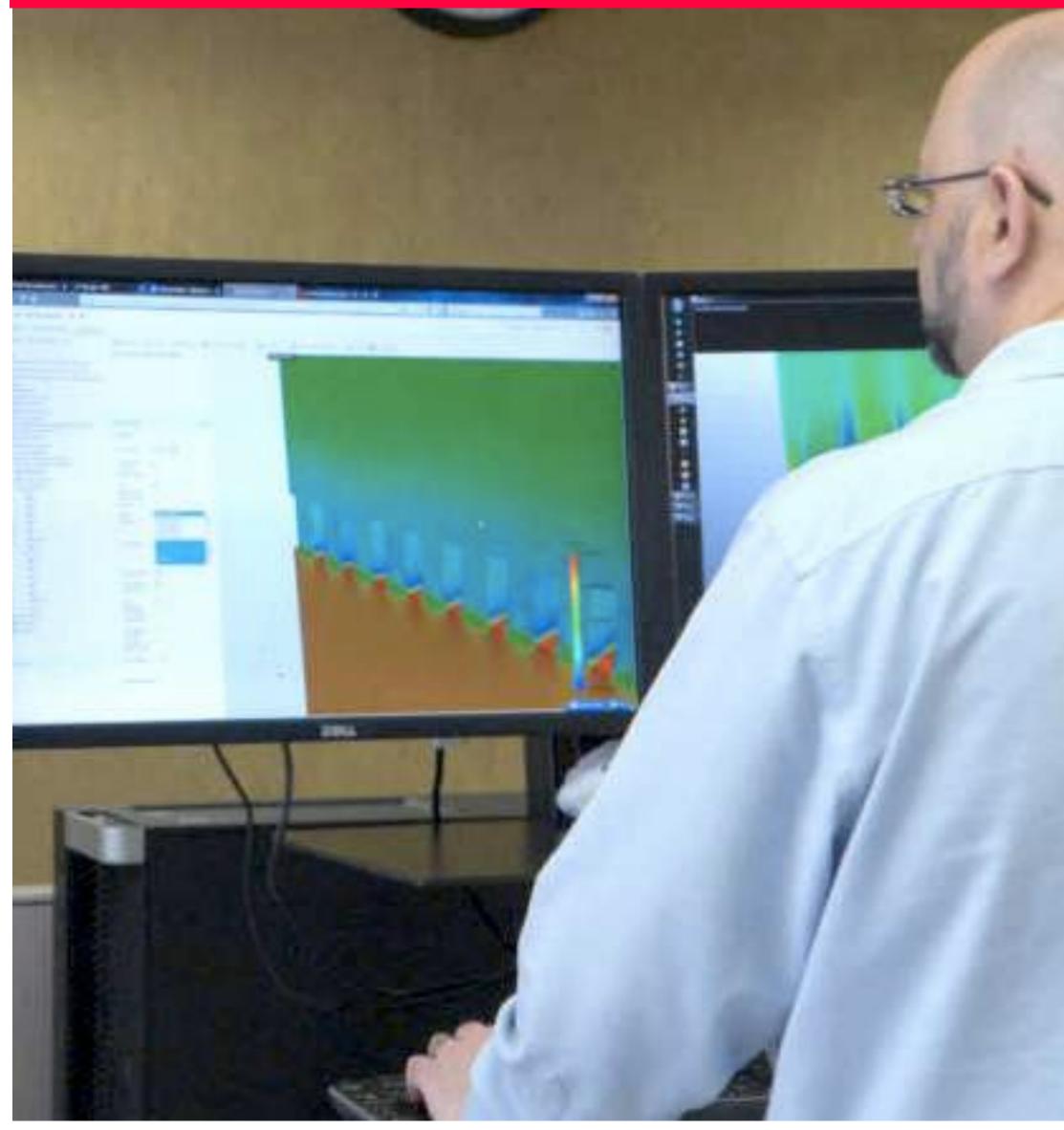
Measures of feature capabilities Customer agreement

#### **KEY TAKEAWAYS**

Product simulation allows for:

- > Immediate feature feedback
- > Evidence-based decisions

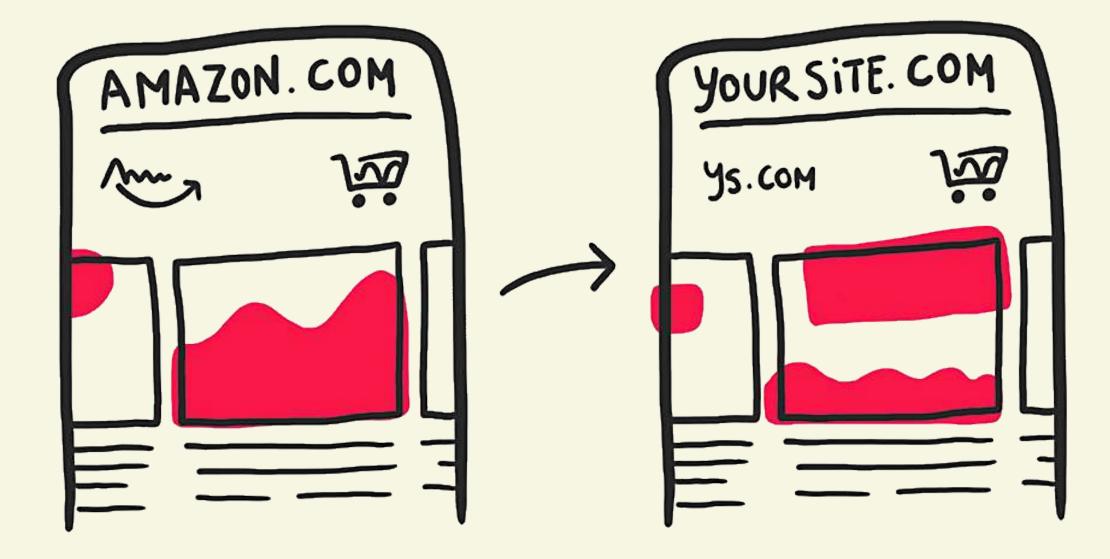
### Example





# 13. Imposter judo

Use a related website/product as if it were your own. Repackage an existing product.





# Imposter judo

### USE A RELATED WEBSITE/PRODUCT AS IF IT WERE YOUR OWN. REPACKAGE AN EXISTING PRODUCT.

Why build something if it already exists? If a similar idea already exists, you can use it as a quick and simple way to gather feedback. With imposter judo we leverage the 'fake it till you make it' rule. This could mean creating static screenshots or mockups of websites and removing the competitor branding or asking customers to sign-up and give you feedback on a competitor's website. This method is particularly effective when selling physical products.

#### PROS

- + Simplicity
- + Speed

#### CONS

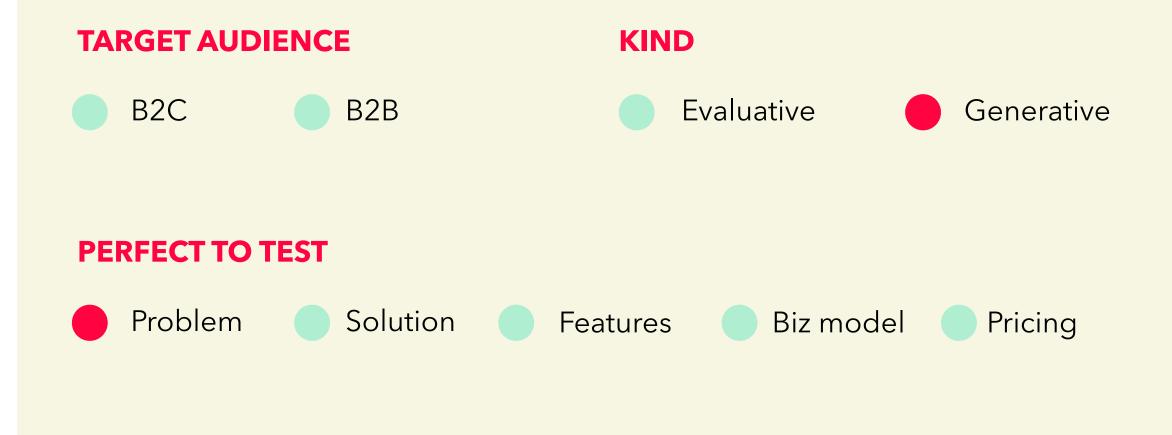
- High risk for corporates

#### TOOLS

Use snippets of existing web pages.

#### **CURRENCY**

Clicks Engagement Conversion





# Imposter judo

### Hypothesis: will people buy shoes online?

In the early days of <u>Zappos</u>, founder Tony Shieh wanted to quickly validate whether people would buy shoes online and be satisfied with the experience. He took pictures of shoes in local shoe stores and presented them in an online shop. When someone bought shoes from him online, he bought the shoes from the local store and mailed them to the customer.

This trick allowed Zappos to test their idea quickly and cheaply during early stages of development, before investing in their own inventory, customer service, logistics and other operations.

#### **TEST CARRIED OUT BY**

The popular online shoe and clothing retailer Zappos.

#### **METRIC**

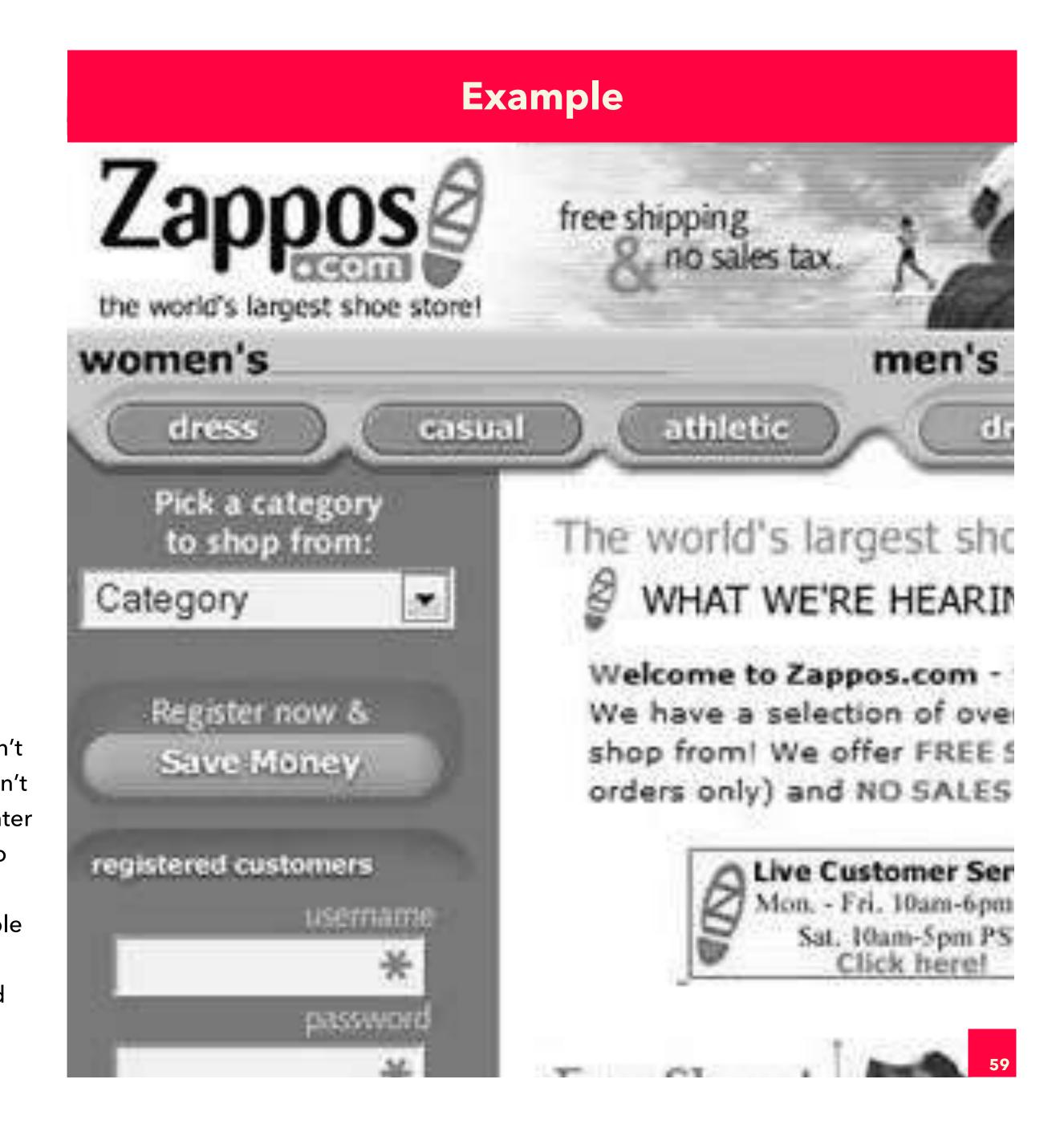
Number of shoes sold in their web shop. Customer reviews of their online shopping experience.

#### **RESULTS**

Zappos could validate their hypotheses and move to a more mature stage of development.

#### **KEY TAKEAWAY**

Testing your idea doesn't need to be big! You don't need to build a call center or distribution center to test your hypotheses. Instead, keep it as simple (and low-tech) as possible, as Zappos did with their MVP.



# 14. Concierge

In-person service for customers where they know that a human performs the task.







# Concierge

### IN-PERSON SERVICE FOR CUSTOMERS WHERE THEY KNOW THAT A HUMAN PERFORMS THE TASK.

This method involves **manually performing tasks** related to delivering the value of your offering to your customers. This MVP approach allows you to move with speed and learn in the process of delivering the intended value of your product or service. Customers are aware that a human is performing the tasks and the intent is for you to eventually derive the learnings needed to automate and optimize this process while avoiding premature and unnecessary tech.

**Note:** This kind of MVP usually delivers a better service than the final one. Therefore, a failed concierge MVP invalidates the hypothesis ... but a successful concierge MVP doesn't necessarily validate the hypothesis.

#### PROS

- + Direct customer interactions
- + Gain understanding

#### CONS

#### - Time consuming

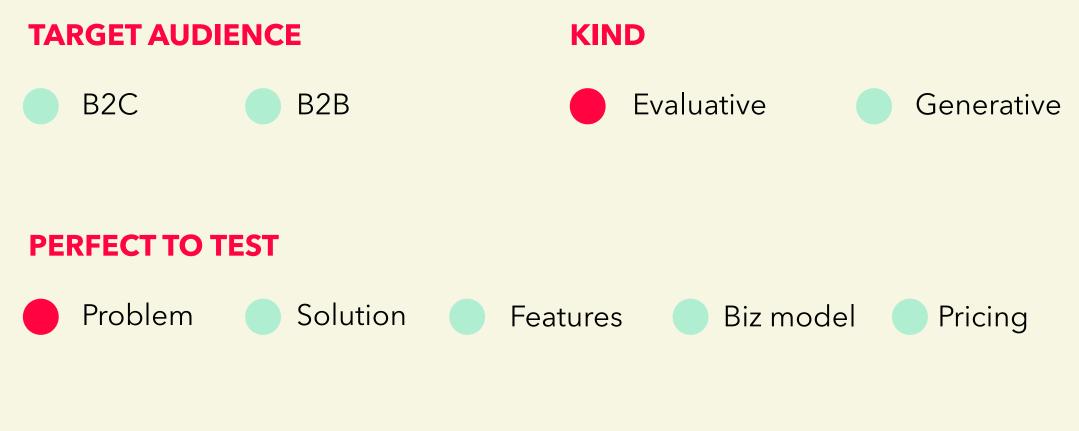
- Labor intensive

#### TOOLS

Manual processes

#### **CURRENCY**

Conversion rate (%) Satisfaction Engagement Usage Attention





\_\_\_\_

# Concierge

### Hypothesis: would customers rent a dress online?

The founders of "<u>Rent the Runway</u>" wanted to test their online dress rental business model. Before going online, they tested an in-person service with female college students wherein they could try the dress on before renting it - a much better experience than online rental. If this test wasn't successful, the online rental model would have been rejected, too.

#### **TEST CARRIED OUT BY**

Jennifer Hyman & Jennifer Fleiss, founders of Rent the Runway.

#### **METRIC**

If no one rented after trying them on, they would learn that online rental was futile.

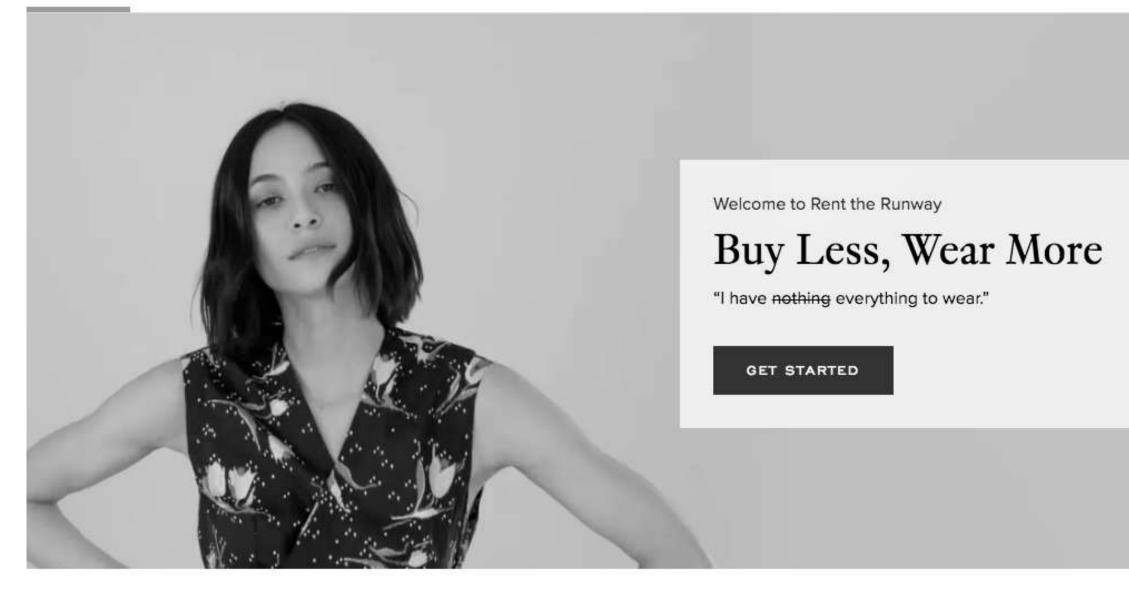
#### **KEY TAKEAWAYS**

The test results showed that 34% (and then 75%) of women rented, so they went on to a validating MVP, where 5% of 1,000 women on their mailing list rented dresses from an emailed PDF.



#### WAYS TO RENT BROWSE NOW STARTED

SIGN IN



#### The Renting Revolution Is Here

You've got 100,000s of options at your fingertips. Try new things, have more fun and go for it.

#### SMARTER CLOSET

FASHION FREEDOM

Imagine a closet that has exactly what you want. Takes up no space. And does all your dry cleaning.

#### TOTAL WARDROBE FLEXIBILITY

Let's be real: your style, size and budget change over time. Now, your closet can too.

#### SMALLER CLOTHING FOOTPRINT

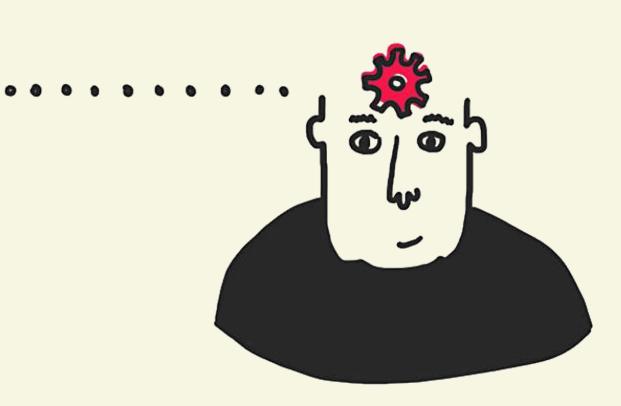
Clothes end up in the back of closets or landfills. Power the sharing economy and rent instead.

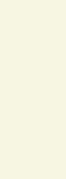


# **15. Wizard of Oz**

Work 'behind the scenes' to deliver the service manually, without huge infrastructure, but make customers believe that the infrastructure is already in place.







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# Wizard of Oz

WORK 'BEHIND THE SCENES' TO DELIVER THE SERVICE MANUALLY, WITHOUT HUGE INFRASTRUCTURE, BUT MAKE CUSTOMERS BELIEVE THAT THE INFRASTRUCTURE IS ALREADY IN PLACE

This method involves manually performing tasks for your customers, while simulating an automated process. Customers are under the impression that they're using a finished product and are unaware of the manual mechanisms working behind the scenes to deliver value. This might take much longer than automated processes at first, but it allows you to move quickly with minimal development.

#### PROS

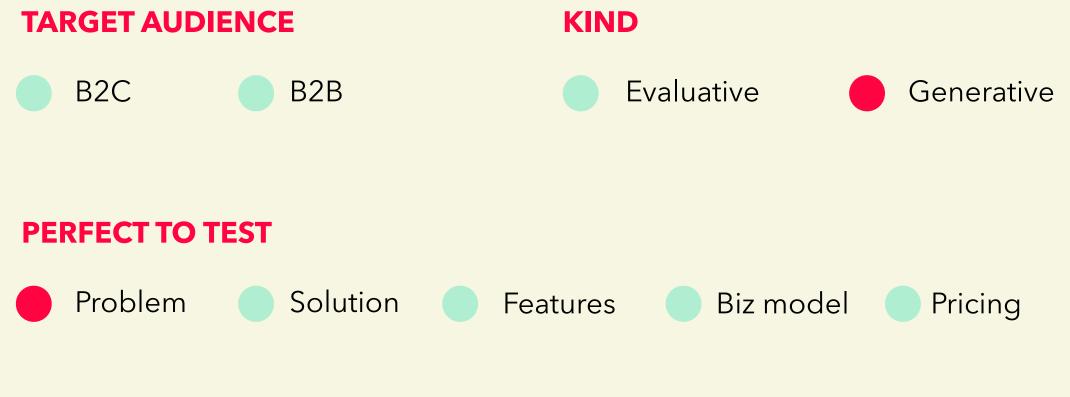
- + Strong evidence
- + Measurability
- + Easy to pivot

#### CONS

- Time consuming
- Labor intensive

#### **CURRENCY**

Conversion rate (%) Satisfaction Engagement Usage

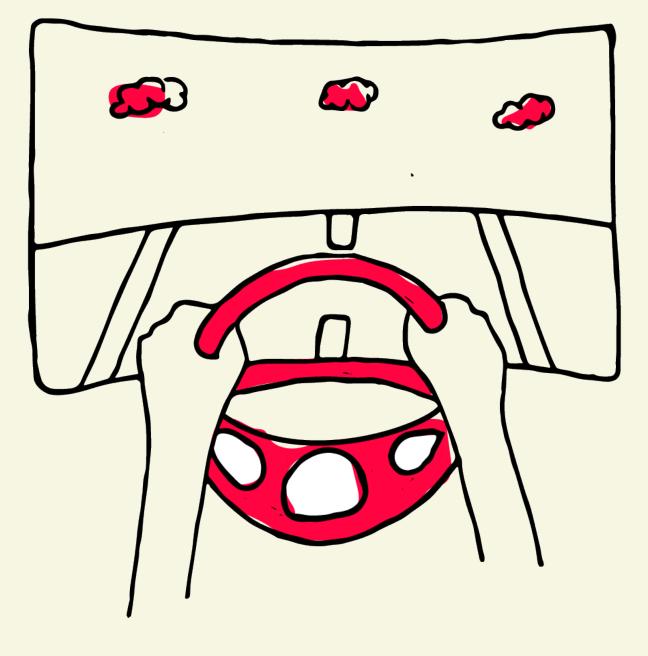






## 16. Process simulation

Create a simulation of a process improvement and make evidence-based decisions.







### **Process simulation**

### **CREATE A SIMULATION OF A PROCESS IMPROVEMENT AND MAKE EVIDENCE-BASED DECISIONS**

Process simulation is a powerful technique for optimizing processes and making confident, evidence-based decisions. A simulation is an animated model that mimics the operation of an existing or proposed system, like the day-to-day operation of a bank, running an assembly line, or assigning staff at a hospital or call center. Simulation models can be optimized for different factors such as improved time or cost. Multiple scenarios can be built to test different ideas and their impact over the long-term.

#### **PROS**

- + Good for process improvements
- + Good for complex projects
- + Prove value before development
- + Scenario testing
- + De-risk

#### CONS

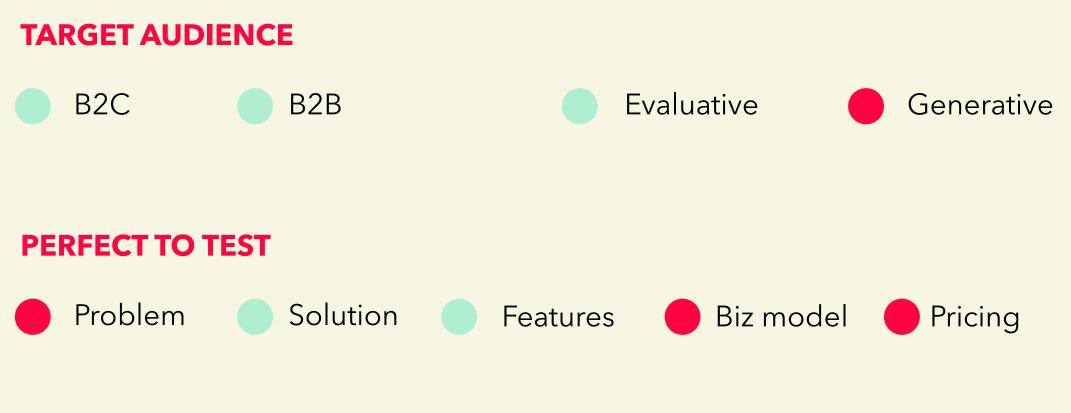
- Not applicable for uncertain projects
- Current-state info needed to build model
- Technical expertise needed

#### TOOLS

Arena <u>Simulink</u> <u>Anylogic</u>

#### **CURRENCY**

Attention Sales/Investment





## **Process simulation**

### **Create a simulation of a process** improvement.

In order to implement a new food delivery service across a complex network of 18 in-patient units, <u>Geisinger Health System</u> used simulation software to test how system parameters would affect patient satisfaction levels and resource requirements. The team developed a simulation modelling and ran multiple scenarios to provide vital information and recommendations to help senior stakeholder decision making and successfully implement the system.

#### **TEST CARRIED OUT BY**

Geisinger Health System

### METRIC

Patient satisfaction (service time expectation) Resource requirements Staff efficiency?

#### **KEY TAKEAWAYS**

**Process simulation** allow for:

- > Process optimization
- > Scenario testing
- > Immediate learnings
- > Evidence-based decisions

### Example





# 17. Landing page

Get out of the building (virtually) by using landing pages to test your hypotheses against user expectations and interest.





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# Landing page

### GET OUT OF THE BUILDING (VIRTUALLY) BY USING LANDING PAGES TO TEST YOUR HYPOTHESES AGAINST USER EXPECTATIONS AND INTEREST

After making sure that users understand your value proposition with a comprehension test, landing pages can be used as standalone single pages where you display your value proposition and aim to convert to a sign-up via email or a sale. Start from a hypothesis, clarify your key metric, and use your call to action to test user interest in your value proposition.

**Pro tip:** Try smoke testing to gauge whether or not there is any serious demand for your value proposition. Add a call to action that asks the user to enter a postal code, credit card info, email, etc. Based on the % of users who fill this in, you get a rough signal of whether there is sufficient demand to build a minimal solution, or if a pivot is needed.

#### PROS

+ Focus

+ Speed and simplicity

#### CONS

- Cost
- Weak evidence
- Dependent on hypothesis

#### TOOLS

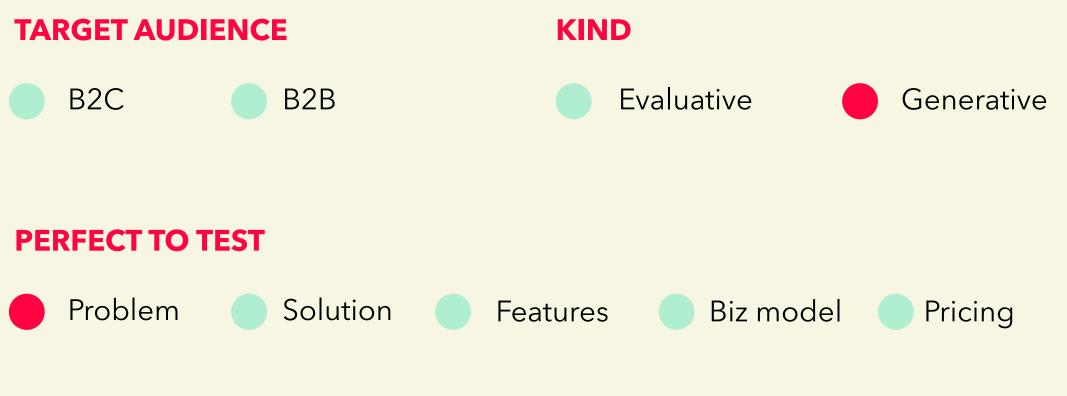
Instapage (starting 29\$/month) and <u>Unbounce</u> (starting 79\$/month) let you design landing pages quickly and analyze

conversion insights.

<u>Google Optimize</u> lets you test different landing pages.

#### **CURRENCY**

Conversion rate (%) Sign-ups Payments Clicks





# Landing page

### Hypothesis: is there a demand for socialmedia-management solutions?

<u>Buffer</u> is an intuitive social media management platform which is trusted by brands, businesses, agencies and individuals to help manage social media. Before developing the actual service or writing code, the Buffer founders wondered if people would actually want the product. To test it, they created a simple landing page, pitched their product and measured interest - as simple as that.

#### **TEST CARRIED OUT BY**

Buffer, a social media management tool.

#### **METRIC**

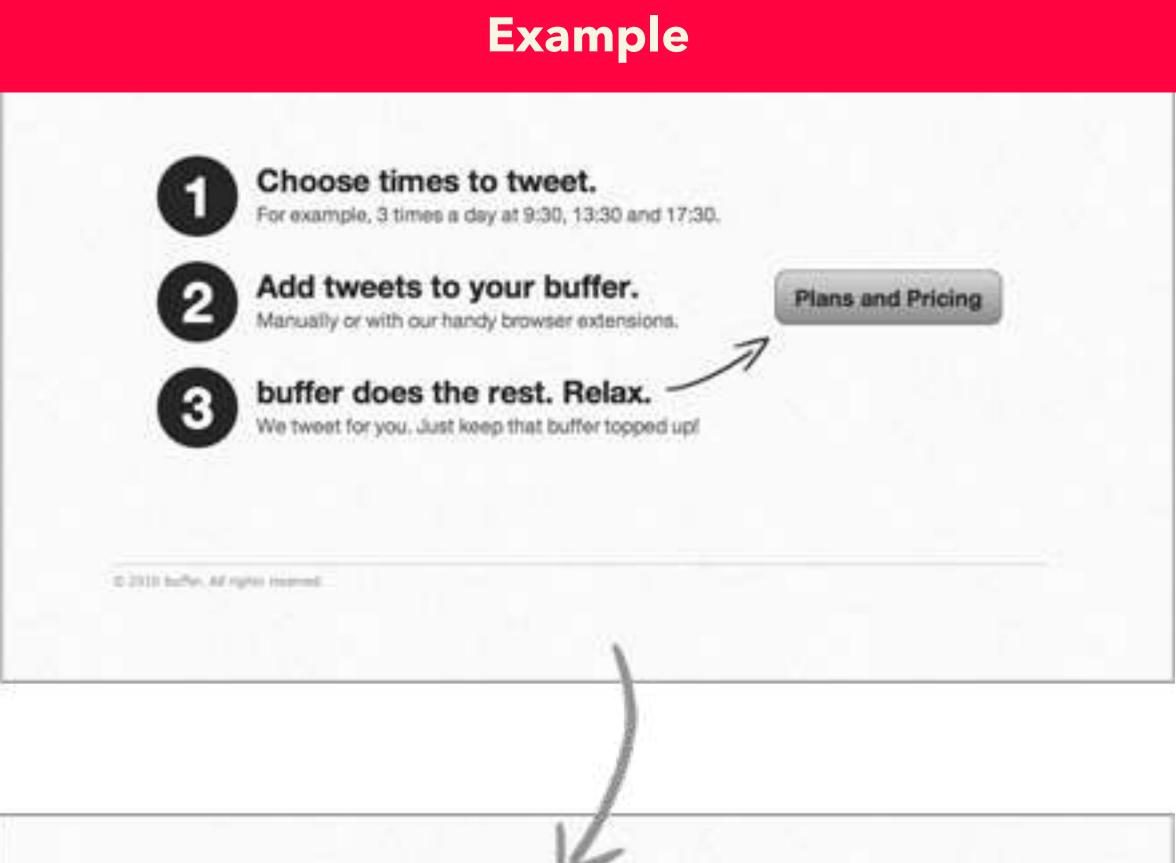
The clicks on the product page and pricing page gave the founders an indication of the actual interest in the product and in the different pricing models.

#### **RESULTS**

The volume of traffic on the landing page gave the founders validation for the solution they had in mind. Additionally, they captured a list of contacts of high-value potential clients.

#### **KEY TAKEAWAY**

If you have an idea, don't immediately start building it but try to investigate the market interest using a prototype, a MVP or a landing page for the product, as if it already existed.



### Tweet more consistently with Sbuffer

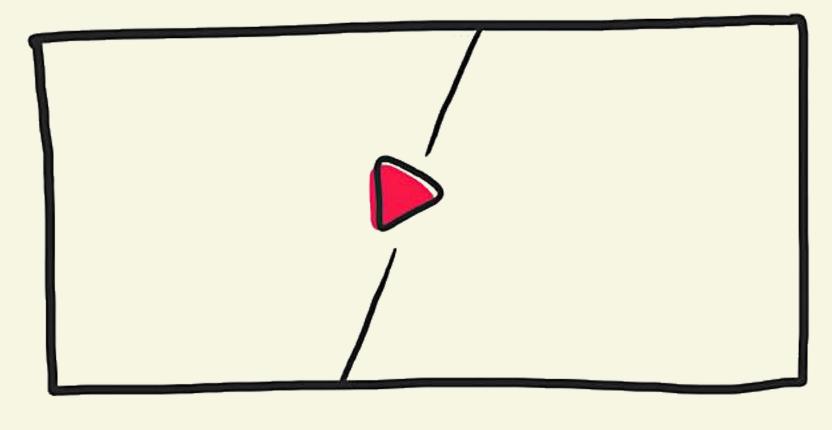
### Hello! You caught us before we're ready.

We're working hard to put the finishing touches onto buffer. Things are going well and it should be ready to help you with Twitter very soon. If you'd like us to send you a reminder when we're ready, just put your



# **18. Explainer videos**

Use explainer videos to show how a service would work.



### THIS IS HOW IT WORKS



# Explainer videos

### USE EXPLAINER VIDEOS TO SHOW HOW A SERVICE WOULD WORK.

Create the illusion that your product is real and already developed by recording and editing a 'real life' scenario involving the use of your product. This video can be displayed on your landing page to explain your offering to customers and influence them to buy or use it. Focus your script and storyboard on the key message that you want to convey. Use visuals, motion and audio to convey and strengthen the message by informing and entertaining the user with the who + what + why of your offer.

#### PROS

- + Clarifying
- + Visual
- + Focused

#### CONS

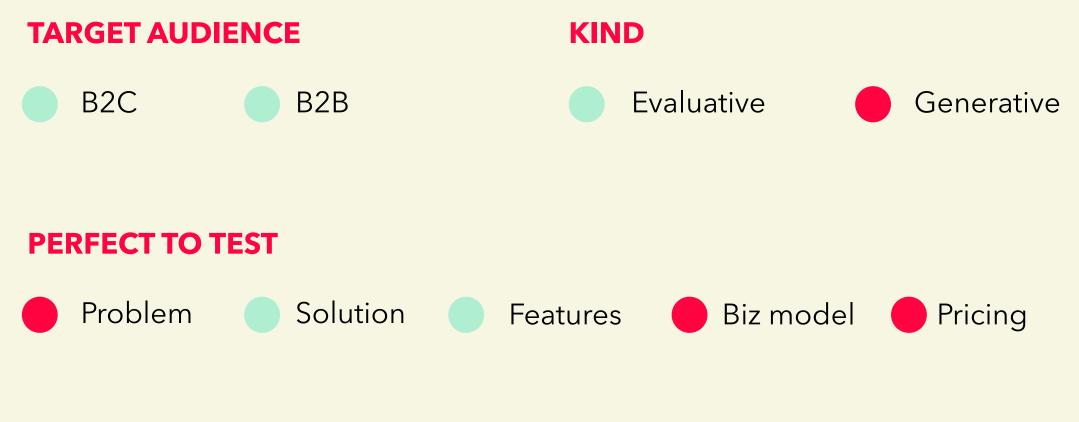
- Requires time

#### TOOLS

<u>Moovly</u> (starting 25\$/ month) lets you create explainer videos with audio clips, whiteboard animation and your own pictures.

### CURRENCY

Clicks Attention





# **Explainer videos**

### **Hypothesis: is there demand for Dropbox?**

In 2009, a relatively unknown startup called <u>Dropbox</u> launched this explainer video. Shortly after the video was launched, this two-minute explainer was placed on the Dropbox homepage, where it was viewed about 30,000 times per day.

### **TEST CARRIED OUT BY** Dropbox

### METRIC

With this video, Dropbox managed to illustrate the mechanics of the service and spark the interest of millions of potential users.

### **KEY TAKEAWAY**

Use explainer videos to introduce the world to your service. Make use of a unique visual style, create a compelling narrative with strong metaphors, and keep it short.



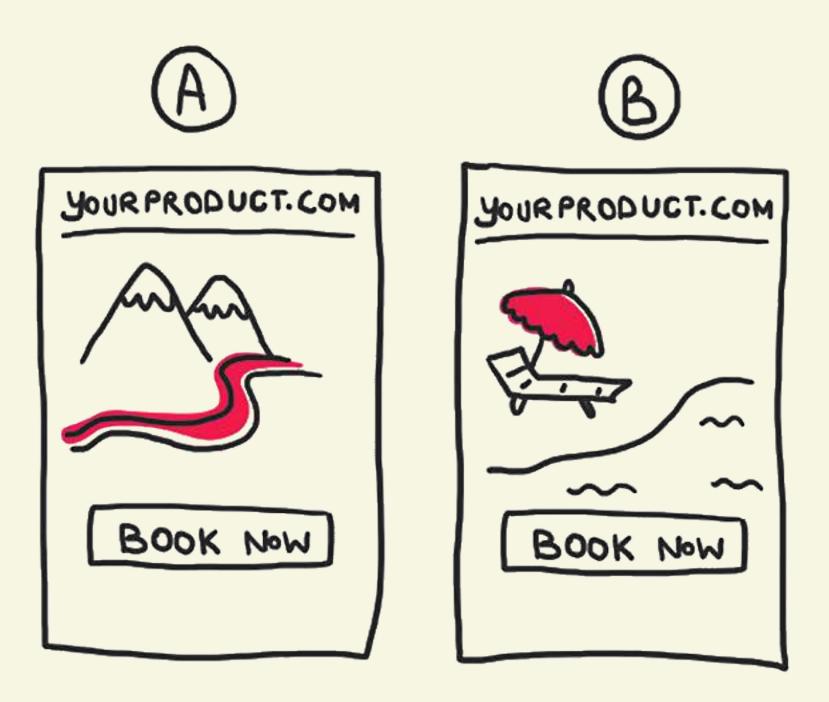






# **19. A/B testing**

A or B? Test two versions of a product with a sample of users, then use the winning version.





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# A/B testing

### A OR B? TEST TWO VERSIONS OF A PRODUCT WITH A SAMPLE OF USERS, THEN USE THE WINNING VERSION

More than a specific experiment, A/B testing encourages marketeers to test 2 versions (A and B) of something to discover which performs the best in maximizing a desired outcome (e.g. purchase rate on an e-commerce platform). There are many elements that can be A/B tested: 2 different subject lines for a newsletter campaign, 2 versions of an AdWords campaign, 2 pricing schemes for a new service, 2 color schemes for a landing page, etc.

### PROS

- + Simplicity
- + Measurability

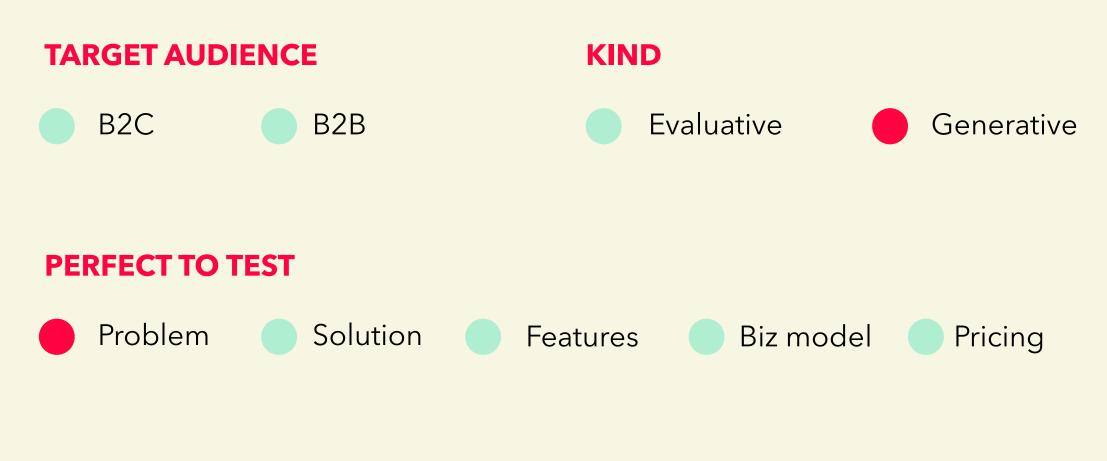
### CONS

 Requires high amount of users

### TOOLS

<u>Hubspot (</u>starting at 200\$/month) and <u>Instapage (</u>starting at 29\$/month) let you design A/B versions of newsletters and landing pages.

### **CURRENCY** Conversion rate (%)





# A/B testing

### Hypothesis: will 'free shipping' trigger more visitors to buy?

<u>NuFACE</u> is an anti-aging skin care company that wanted to boost online sales. Analytics showed that visitors spent a long time on the website, browsing through a variety of products but were reluctant to purchase. They decided to offer an extra incentive: free shipping for orders above \$75.

### **TEST CARRIED OUT BY**

NuFace, an anti-aging skin care company with an active online store.

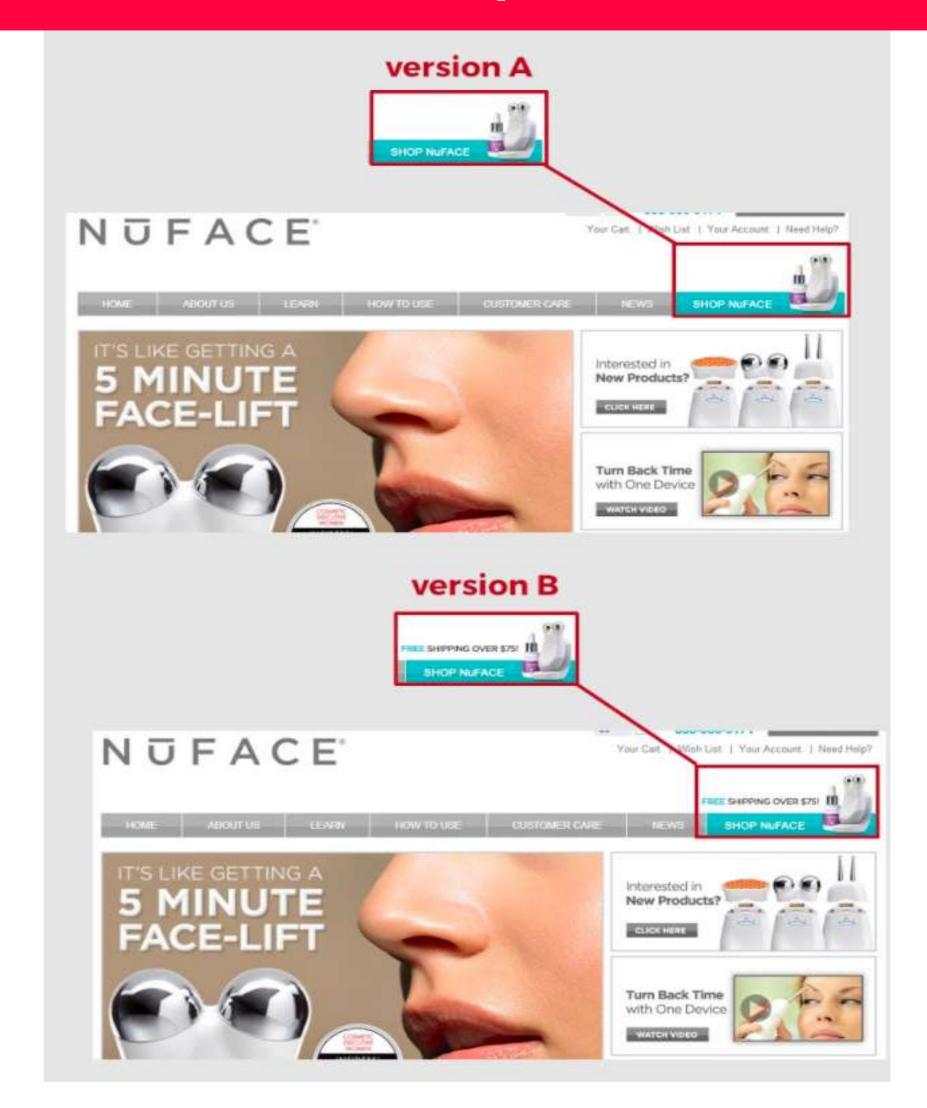
### **METRIC**

Sales from customers with free shipping incentive versus sales from customers without free shipping incentive.

### **RESULTS**

The test results showed that when customers were given the free shipping incentive, orders increased by 90%. In addition to this, the company's average order value also rose by 7.32%.

### Example

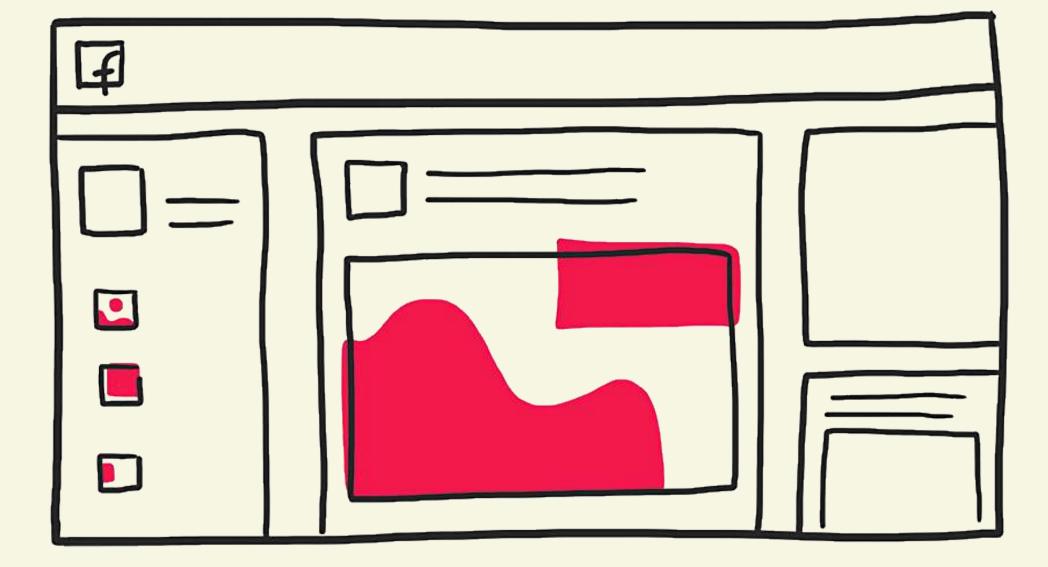




# 20. Ad campaign (online)

Use ad campaigns as a way to validate the market.







# Ad campaign (online)

### USE AD CAMPAIGNS AS A WAY TO VALIDATE THE MARKET.

You can use online advertising services such as Facebook, Google and LinkedIn to test your offering with the target customers you are trying to reach. With this low-fidelity test, you can gain insights into how much your customers are willing to pay, the market size, and/or the cost of selling. You can also see which features or aspects of your offering are most appealing to your target customers by analyzing click-through rates and conversions. Additionally, paid banner ads and keywords can be used to drive traffic from the ads to your landing page. This allows for more information on what is actually compelling to your customer.

**Pro tip:** Ad campaigns work well with A/B testing.

### PROS

- + Speed
- + Information quality
- + Good for testing features

### CONS

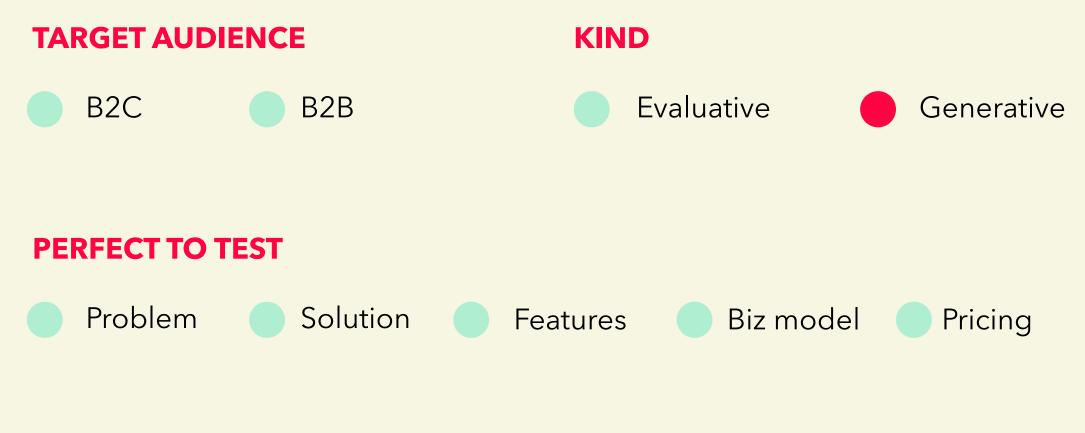
- Price
- Ad and marketing skills needed

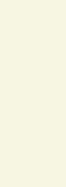
### TOOLS

<u>Facebook for Business</u> <u>Google Adwords</u> <u>LinkedIn</u>

### **CURRENCY**

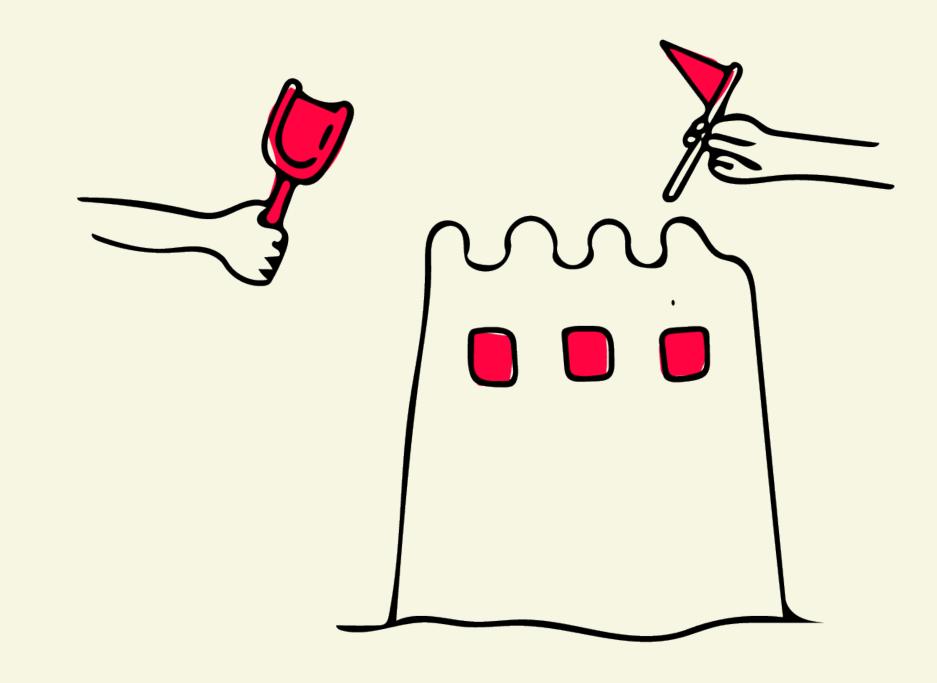
Conversion rate (%) Click-through-rate





# 21. Co-creation

Involve a key customer early in the development process.





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# **Co-creation**

### INVOLVE A KEY CUSTOMER EARLY IN THE DEVELOPMENT PROCESS

When working in B2B, a good approach is to co-create your solution with someone in your network (a partner, customer, or supplier). Cocreation for B2B solutions is an effective method for three reasons:

### **1. Concentration**

Some B2B markets consist of only a few companies. Building a strong, ongoing relationship with one company allows you to understand market needs with few interviews.

### 2. Customer foresight, willingness, and knowledge

B2B customers have foresight into their business objectives before experiencing your product. They are often willing to help as long as it improves their business objectives. Customers are highly knowledgeable about tools and processes.

### 3. Relationship-building

Co-creation allows for multiple stakeholders and decision-makers within a company to get involved early in the process, building support for the solution.

### PROS

- + Direct customer interactions
- + Gain understanding
- + Ensure needs are met
- + Effective for uncertain projects

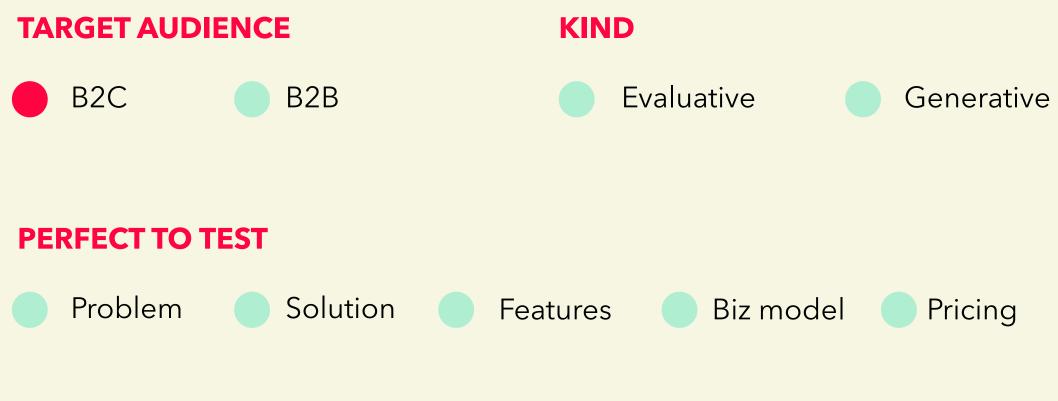
### CONS

- Depends on market situation
- Existing relationships are advantageous
- Conversation needs
  to happen on a non technical level

### **CURRENCY**

Engagement (meetings, phone calls, involvement of other stakeholders, shared information).

Payment of co-creation effort.







# **Co-creation**

### **Engage key customers and/or suppliers early** in the concept development process.

<u>Valmet</u>, a Finnish corporation dating back over 220 years, is the global leader in board and paper, pulp, energy, and automation. Board of Innovation developed and facilitated a co-creation program between Valmet and <u>Sappi</u>, one of Valmet's key suppliers. The program stimulated innovation and shortened the product development process from a few years to a few months. Several concepts from the program are currently being developed and refined.

### **TEST CARRIED OUT BY**

Valmet & Sappi

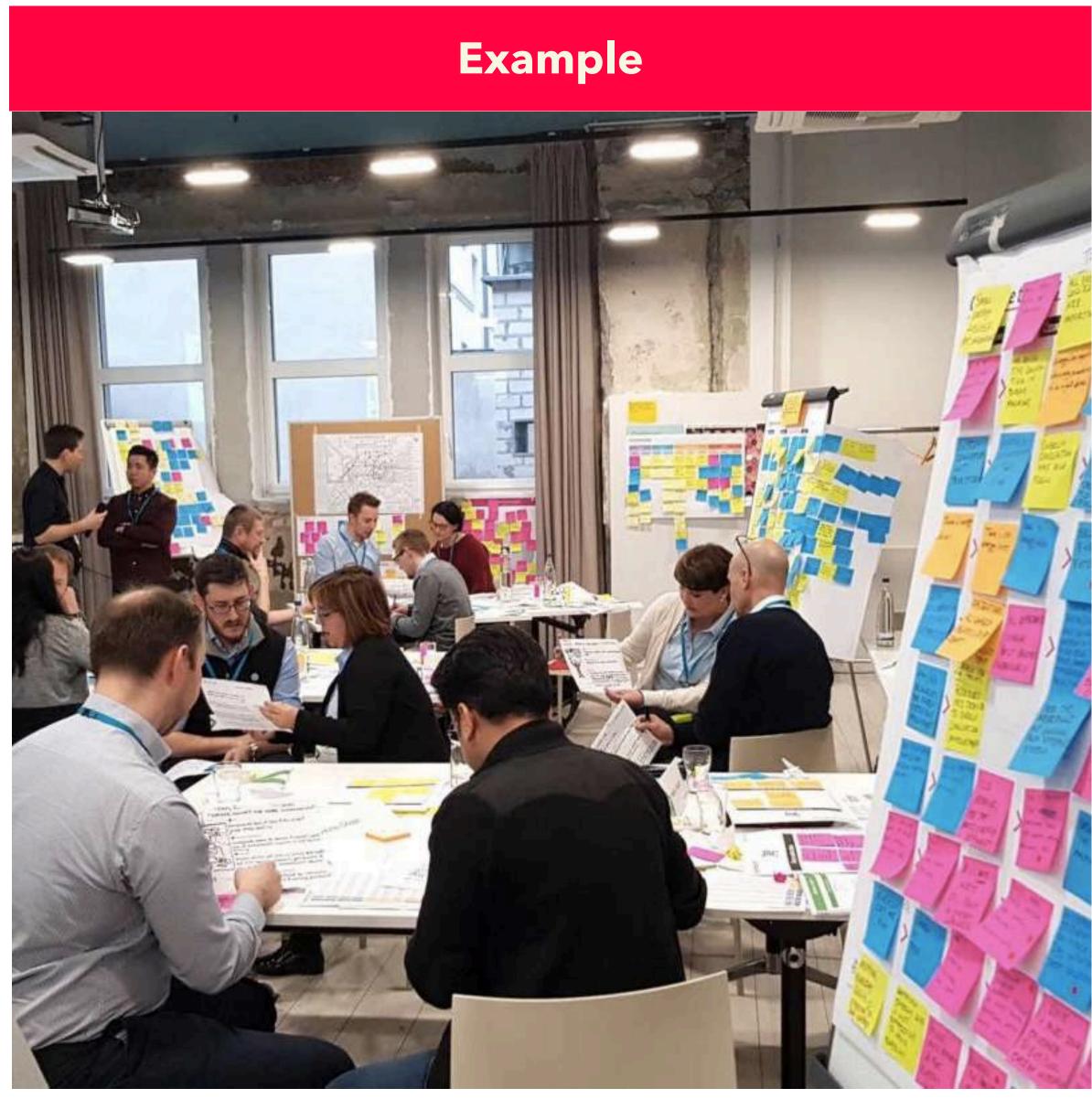
### METRIC

The number of concepts generated. Stakeholder engagement from both parties.

### **KEY TAKEAWAYS**

- Co-creation allows for:
- > Stronger customer relationships
- > Reduced risk
- > Increased speed to market







# 22. Crowdfunding

Use crowdfunding platforms as a way to validate an idea by getting backers to put money into your concept before building it.





# Crowdfunding

USE CROWDFUNDING PLATFORMS AS A WAY TO VALIDATE AN IDEA BY GETTING BACKERS TO PUT MONEY INTO YOUR CONCEPT BEFORE BUILDING IT.

Use the pre-order method of crowdfunding platforms to run your MVP test. Test the need for your offering and discover customer preferences. The idea is to gauge interest, secure backers and only build once there is sufficient interest by raising your target amount. The key for these campaigns is to come up with a compelling elevator pitch (usually a video, strong visuals and infographics) that will convince your target audience to buy into your idea and become a backer.

**Note:** If it is for test purposes, carefully consider your incentives to see if there is a natural market.

### PROS

- + Simplicity
- + Rapid idea validation
- + Generates cash
- + Low risk

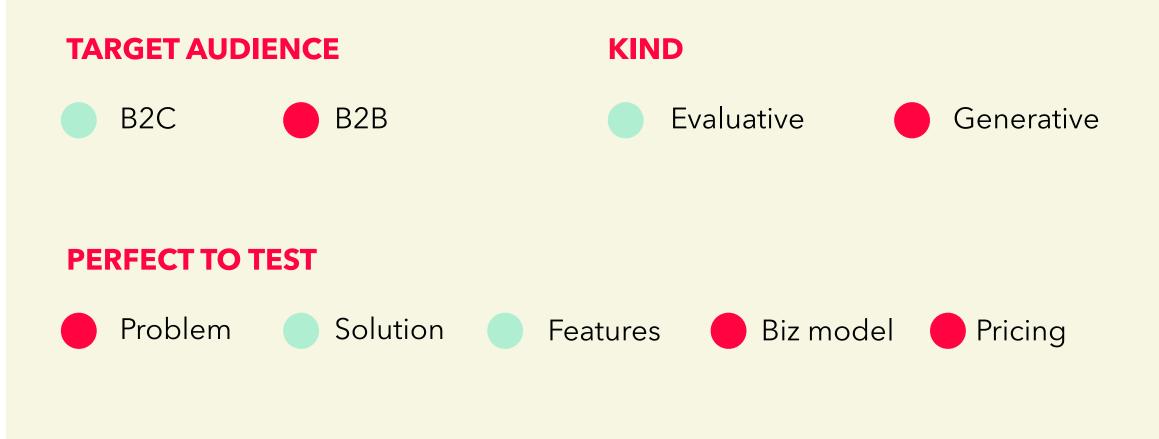
### CONS

- Copycat risk
- Hard for nonconsumer products

### TOOLS

### <u>Kickstarter</u> Indiegogo

### **CURRENCY** Payment Engagement





# Crowdfunding

### Pebble Time was the fastest funded Kickstarter project.

Palo Alto-based company <u>Pebble</u> decided to launch its newest watch, the Pebble Time, on Kickstarter. Less than 48 hours after launching, Pebble Time officially topped the company's previous Kickstarter record. Pebble's IP has now been acquired by Fitbit.

### **TEST CARRIED OUT BY**

Pebble Time

### **METRIC**

The amount of money raised

### RESULTS

Pebble raised \$20.3 million from over 75,000 backers, breaking records on the Kickstarter site. The first million was raised in 29 minutes!

### Example





# 23. Pre-sales

Talk to your customers and gauge their interest by testing their willingness to pre-order.

# PRE -ORDER



# **Pre-sales**

### TALK TO YOUR CUSTOMERS AND GAUGE THEIR INTEREST BY TESTING THEIR WILLINGNESS TO PRE-ORDER

Pre-sales allow you to present your product to potential customers and convince them to pay for it before fully building it. You have two options: **installing a "pre-order" button on a landing page, or directly talking to customers**. This second option, even though less scalable, allows for more qualitative insights by seeing customer reactions first hand. These might come in handy to form user personas at a later stage.

### PROS

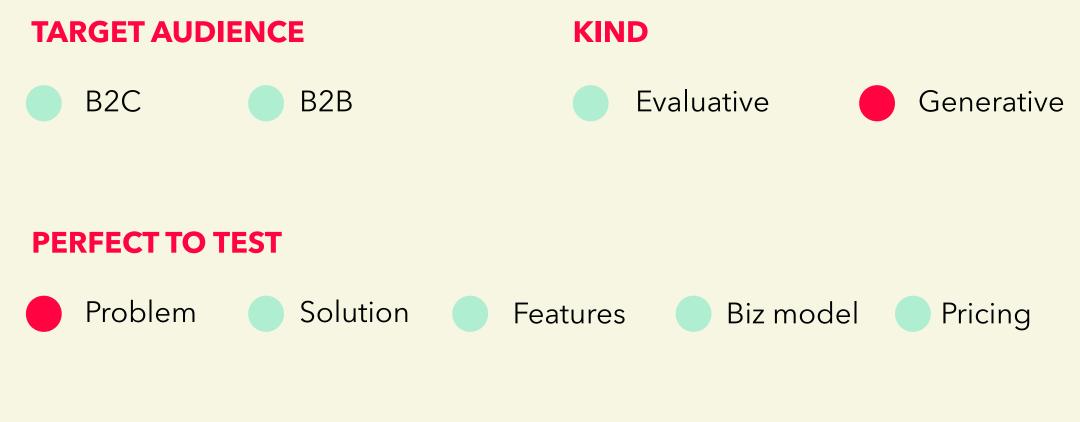
+ Direct customer

- interactions
- + Gain understanding

### CONS

- + Time consuming
- + Labour intensive

### **CURRENCY** Payment







# **Pre-sales**

### Launch a pre-order page before kicking off production.

Oculus VR, the American VR technology company, often launches preorder pages for its products before kicking off production. When preordering, you know exactly how much the product costs and on which date it will be shipped. The company offered pre-orders for Oculus Rift, Oculus Touch, Oculus Go, among others.

### **TEST CARRIED OUT BY**

Oculus VR

### **METRIC**

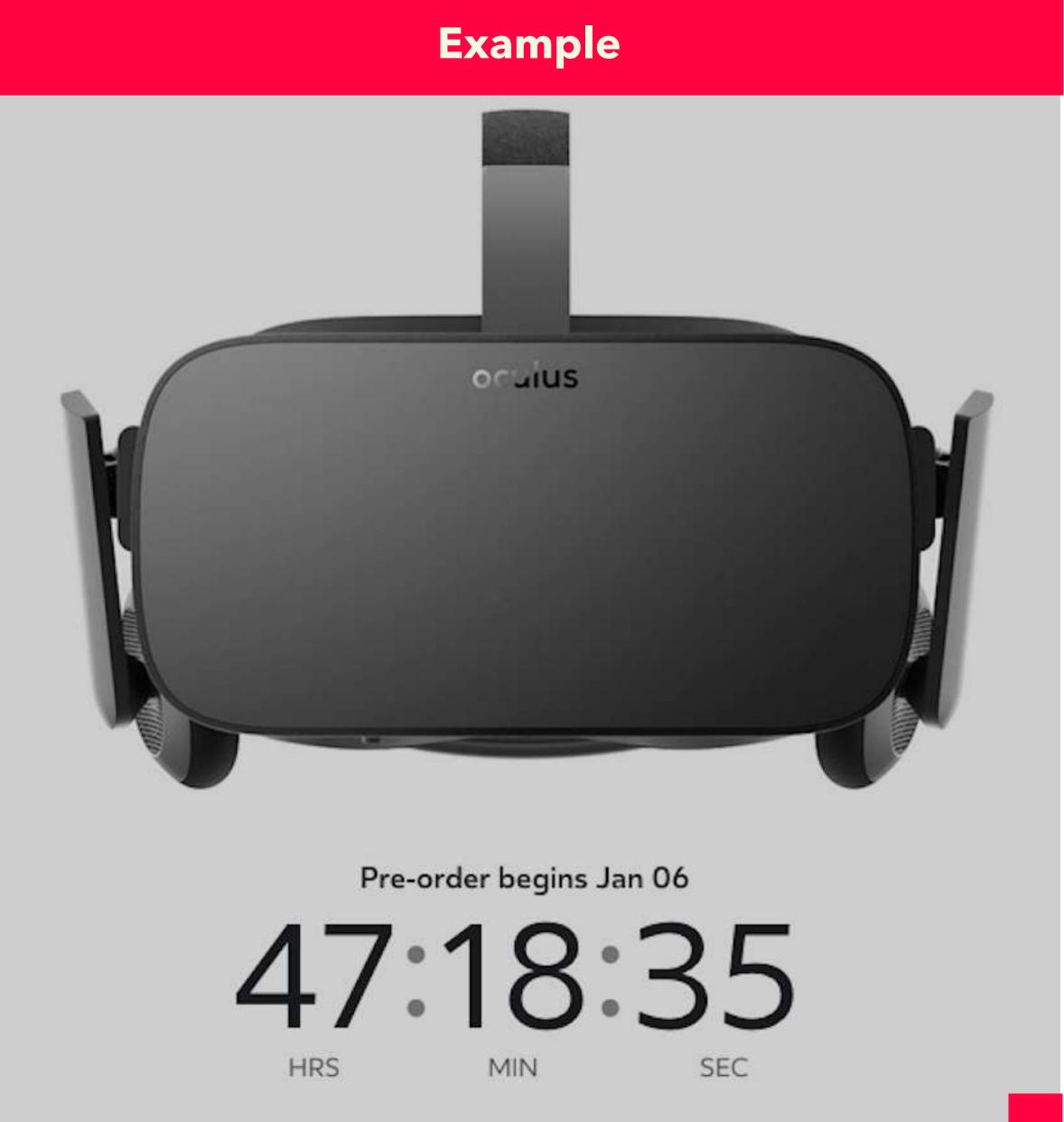
The number of preorders registered

### **KEY TAKEAWAYS**

Pre-orders allow for:

- > Clearer estimation of real demand
- > Better estimation of production targets
- > Cash-in

> Marketing advantages - sense of community and exclusivity for the early adopters



# 24. Letter of intent

Test your hypotheses by asking prospects to sign a non-binding letter of intent to pay for your solution.





# Letter of intent

### TEST YOUR HYPOTHESES BY ASKING PROSPECTS TO SIGN A NON-BINDING LETTER OF INTENT TO PAY FOR YOUR SOLUTION

Letters of intent can be used to validate your assumptions about your product by asking customers for currency and to explicitly note what they are willing to give in return for your value proposition. These are people who undergo the problem and pain points you have identified and currently use workarounds.

### PROS

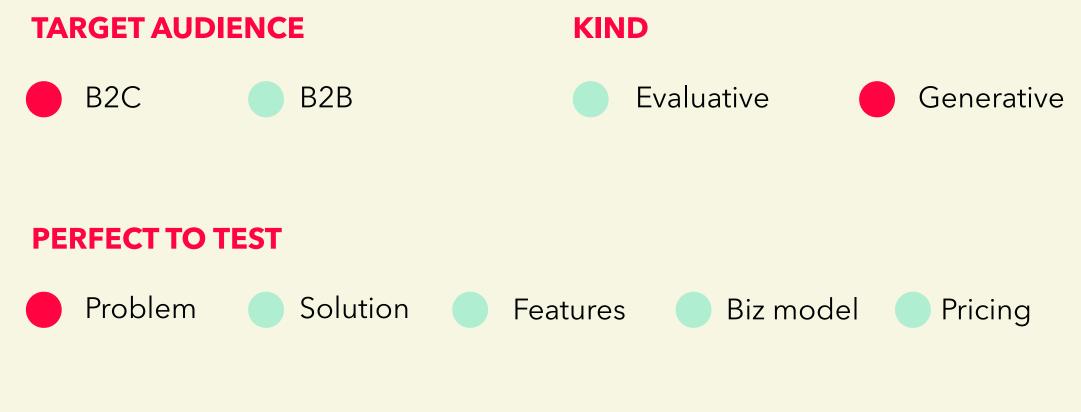
- + Simplicity
- + Speed
- + Straight-forward
- + Explanatory

### CONS

- Weak validation
- Non-binding

### **CURRENCY** Signature

Time









# **Experiment, then what?** Our team of innovators help corporates validate new business propositions, to ensure the creation of desirable, viable and feasible services.

**Our experimentation offerings** 







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# This is the end

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