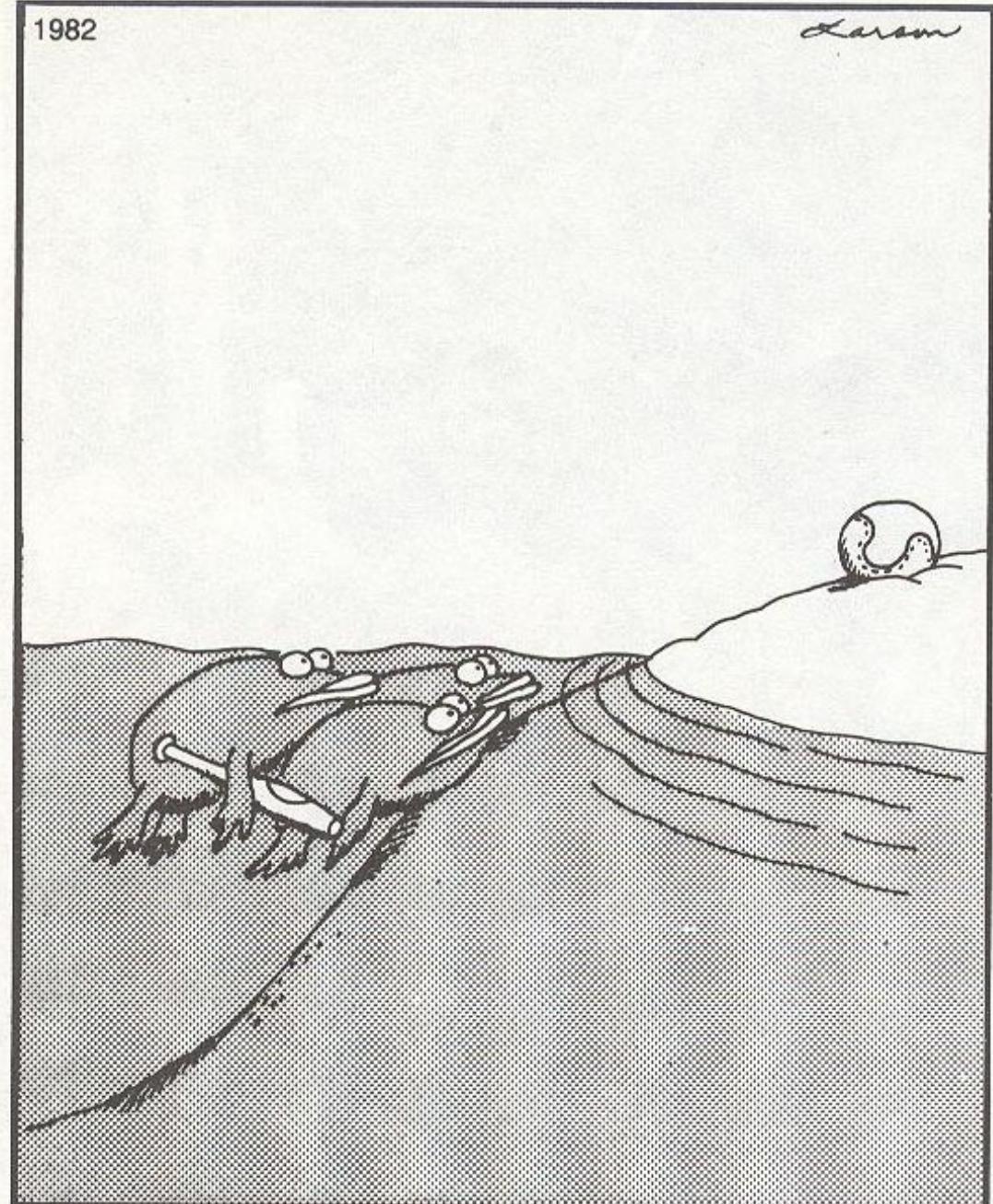


# Start Up in ICT

- Assembling your Teams
- Problem/Solution Fit
- Product/Market Fit

fabio.dalessi@unipd.it  
Start Up in ICT - UniPD  
April 12th & 19th, 2024



Great moments in evolution

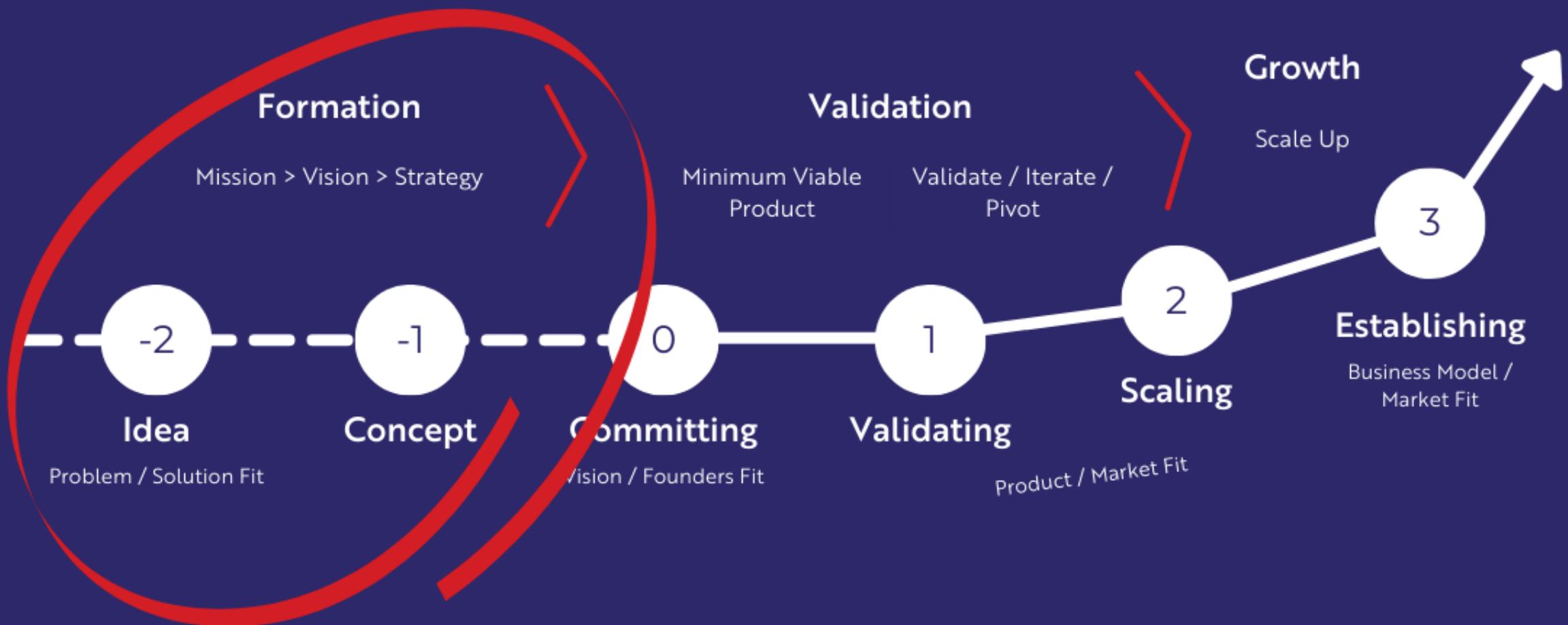
A photograph of four young adults—two men and two women—standing outdoors on a gravel surface. They are positioned in front of a wooden railing, with a cityscape and rolling hills visible in the background under a clear sky.

Zorpft!

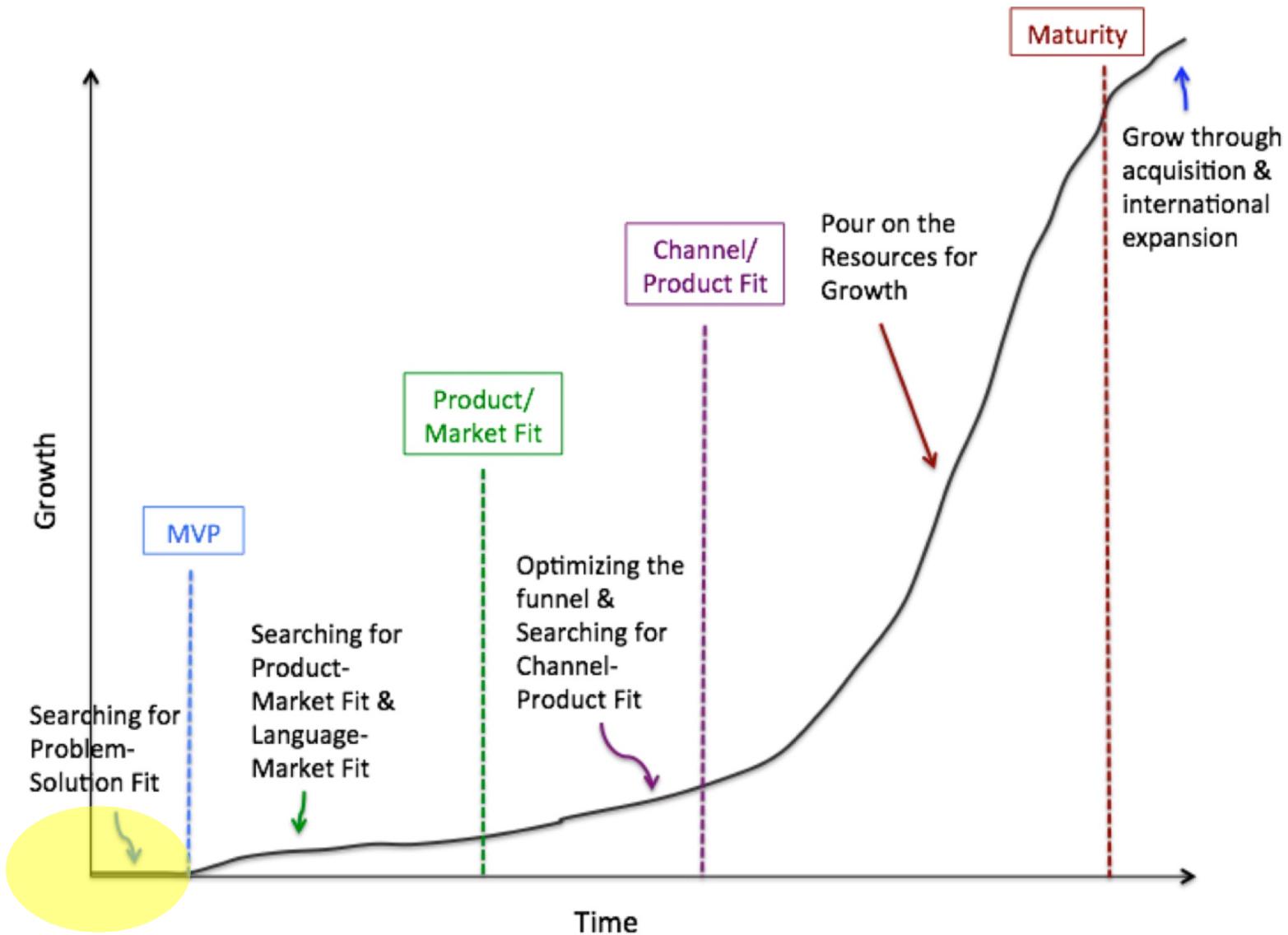
...annnd, so what's next?



# Problem-Solution Fit (PSF)



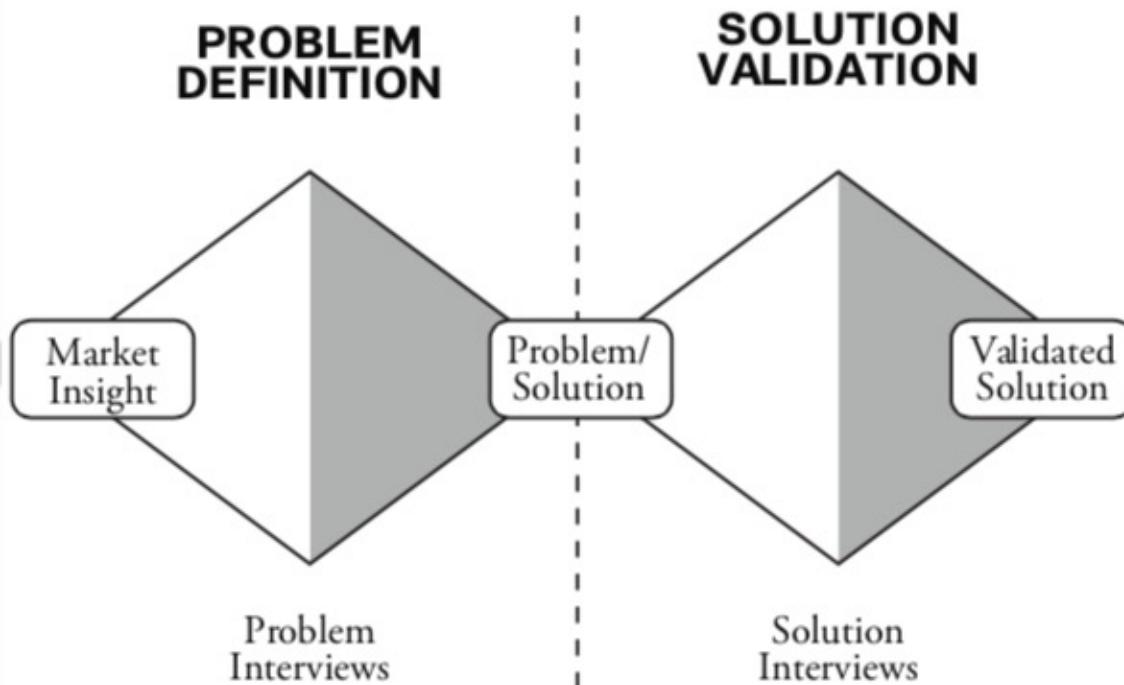
# Level 1 - Problem/Solution Fit



# Problem/Solution fit **Validation**

**Problem/Solution Fit:** being sure that the problem you identified is the real one («the five whys rule») and that the solution you are thinking at is the best one.

**Magic Tools:** the Double Diamond



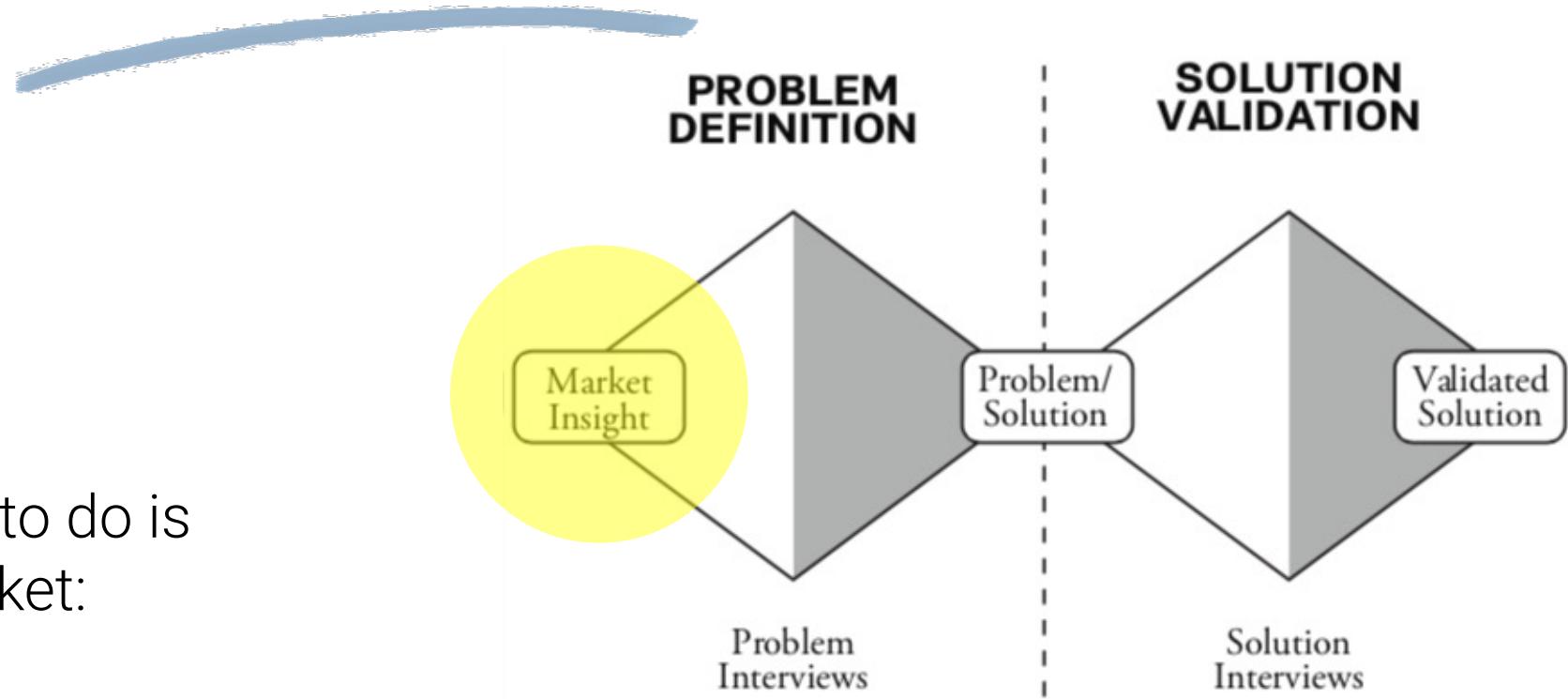
**Magic Tricks:**

- The «Five Whys» Rule.
- Look for Delight.
- Follow strong signals, not strong numbers.
- Never think at the product.
- The «invalidation» method.
- Canvases.
- Experiments.

# Problem // Market Insight

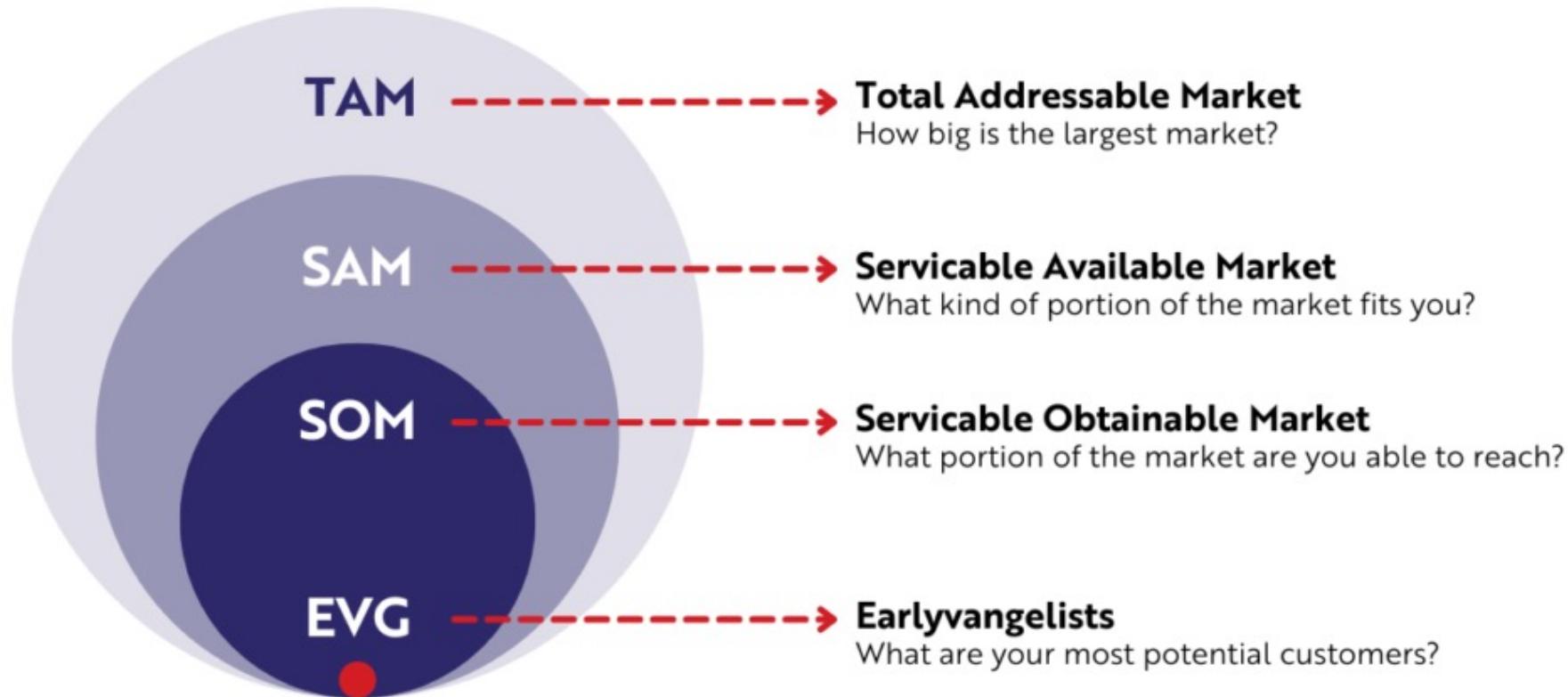
The first thing you need to do is understanding your market:

- 1) Study
- 2) Read some articles/reviews
- 3) Access some forums / social platforms
- 4) **Define the market size**



# Problem // Market Sizing

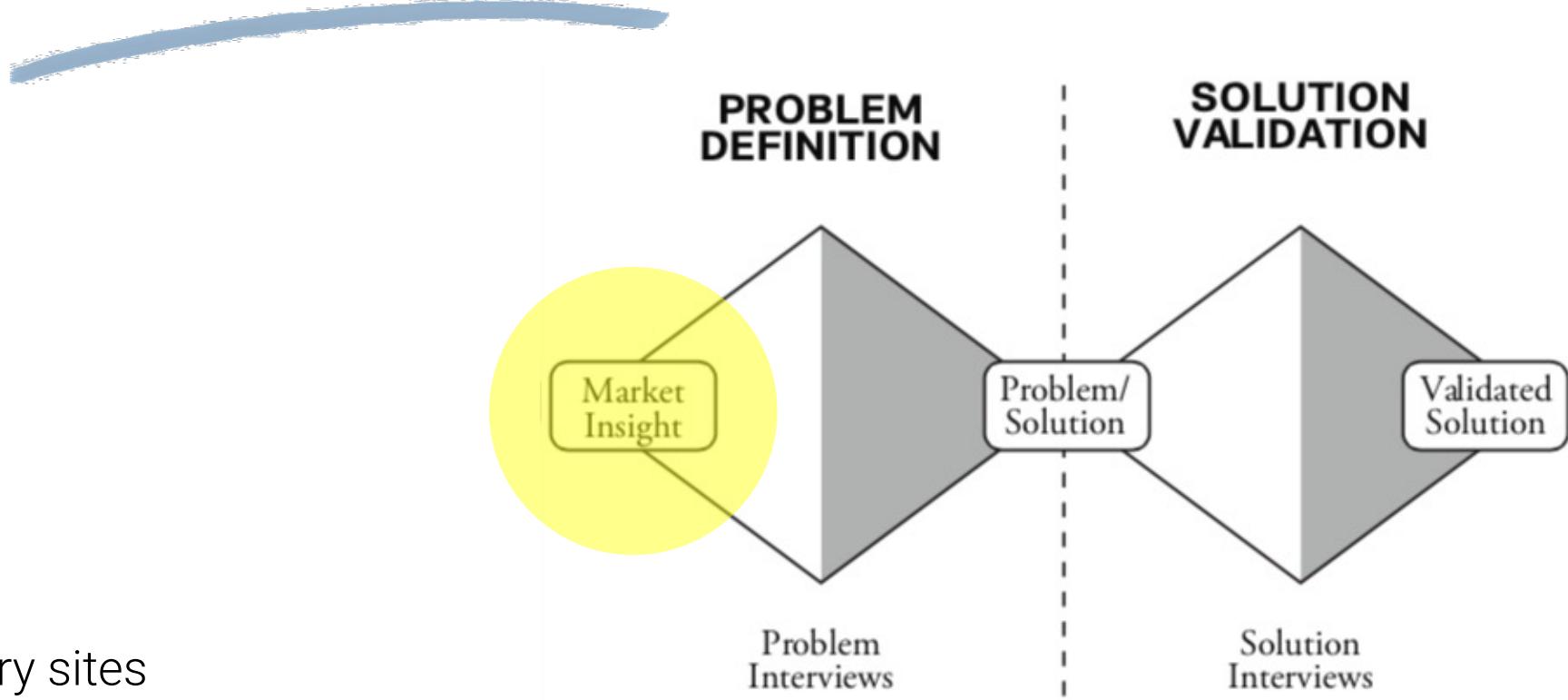
## TAM SAM SOM



# Problem // Market Sizing / 2

Where do I find data?!?!

- 1) ISTAT / EuroStat
- 2) University / Observatory sites
- 3) Organizations / Societies
- 4) Open Data
- 5) Forums / Facebook
- 6) Amazon/Google/Trustpilot reviews
- 7) ...

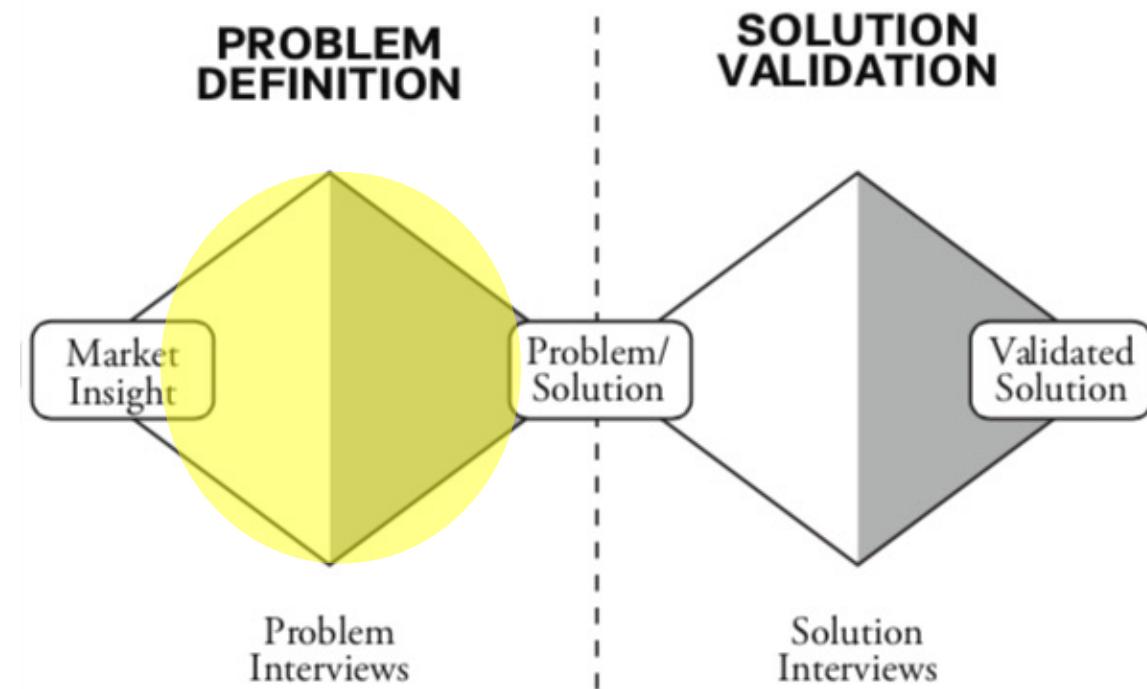


# Problem // Interviews

Whenever possible, Search for DATA, don't take OPINIONS

If you still want to proceed with interviews:

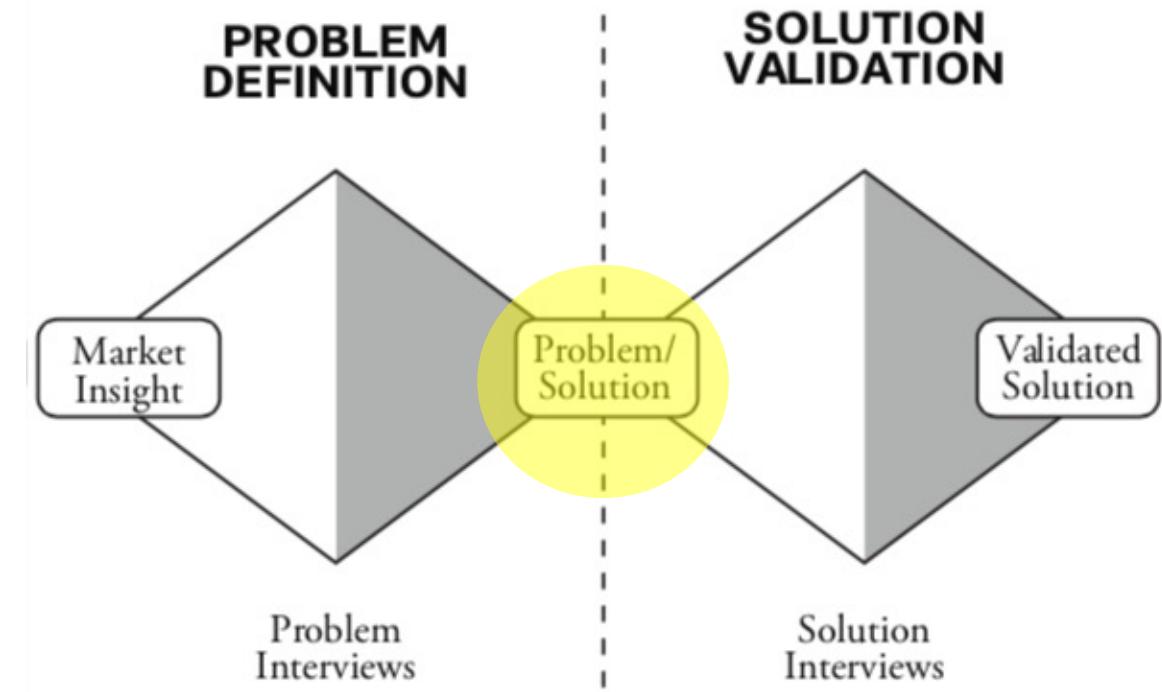
- 1) Interview people in relevant environments.
- 2) 15-30 interviews minimum, stop when you start learning nothing new.
- 3) Direct interview, live, no videos. Start with small talk and relaxed atmosphere. 30-50' max.
- 4) Explain why you're doing the interview. Smile.
- 5) DON'T SPEAK. LISTEN.
- 6) Do not ask direct questions – prefer to learn the customer details – life, habits, preferences.
- 7) Define very specifically the job to be done.
- 8) Gather numbers whenever possible (ie «how important it for you, from 0-10, to resolve this problem?»)
- 9) Ask how they resolve their problem now and what's good in their current solution and what's bad.
- 10) Watch out for the confirmation bias!!
- 11) Understand if you have found an Early Adopter!
- 12) Doing good interviews is art & magic, not mechanics.



# Problem // Decision

Take a Decision:

- 1) Did you find a good (40% Rule) problem?
- 2) Is it adequately refined?
- 3) Does it stand out from the others?
- 4) Are you at the root cause (5-whys) or not?
- 5) Do you have the impression that a different problem may be of higher impact/importance?



Decide: Modify and Repeat or Proceed to Solution.

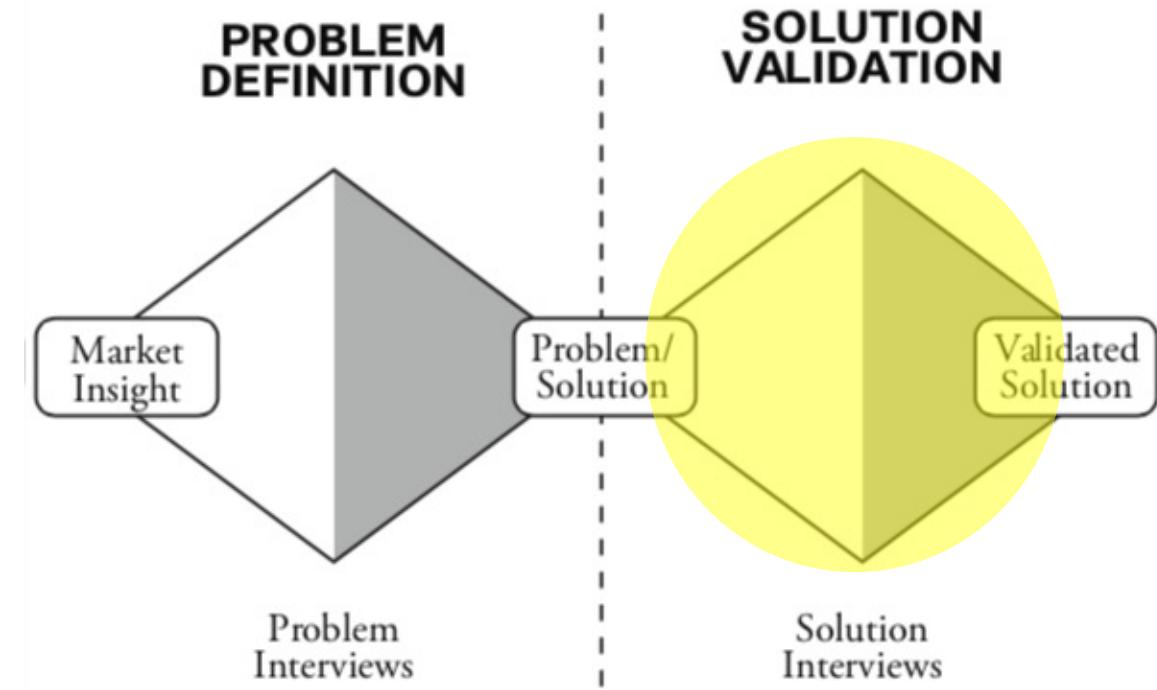
# Solution // Pretotyping

Once you start thinking about a solution you should try ideas and this is where your stem DNA should go wild – as little time as possible!

Once you have an idea, prototype it.

- 1) Build
- 2) Test
- 3) Gather data
- 4) Learn

Decide (modify&repeat or pivot or close)



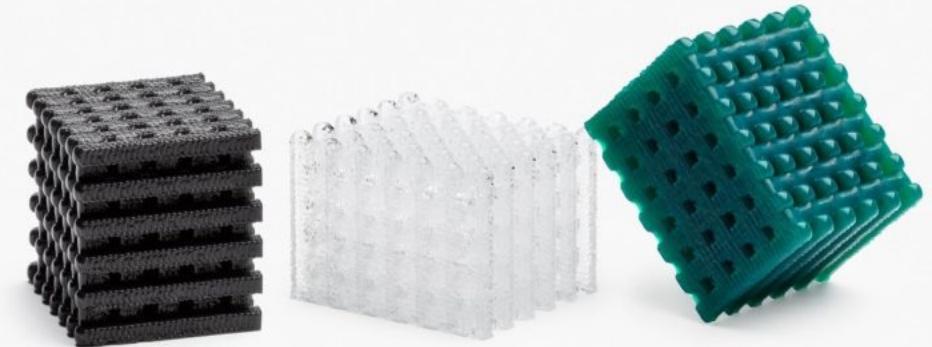
The Magic of **Pretotyping**



# Pretotyping classes // Obvious

There are several type of pretotyping techniques:

1. Pitches
2. Mockups
3. Fake UIs
4. Renderings
5. 3D Prints



# Pretotyping classes // Fake Door

Test the Initial Level of Interest (ILI) in a yet-to-be-developed product or service by creating artifacts that suggest that the product exists and it's available to see if people would buy it.

Would anyone order **McSpaghetti** at a McDonalds? Don't cook a single strand of pasta! Put McSpaghetti on the menu (either in a store or online if applicable) and see if anybody orders it. If someone orders it, say that it's not currently available, apologize and offer them a free burger instead.



# Pretotyping classes // Facade

Test the Initial Level of Interest (ILI) in an existing but not yet broadly available/scalable product or service by creating artifacts that suggest greater availability (or scale.)

Would people buy used cars online (in late 90s)? Bill Gross bought some ads in a newspaper advertising **CarsDirect**, a new way to buy cars online. He had no car inventory, but created a simple website to see if people would actually go for it. When people clicked on a “buy” button, he bought the car at retail and delivered it to the customer. Over a week-end he sold a few cars. He lost money on every transaction, but validated the business model for his idea.



# Pretotyping classes // YouTube (...)

Through the “magic of movies” you can make products that don’t yet exist come to life and see how people react to them: Are they intrigued? Interested? Will they sign up to learn more or, better yet, commit to buy?

**Google Glass** was first introduced to the world via a YouTube video that showed not what the actual glasses looked like, but what the world would look like through the glasses. People who found the vision (pun intended) of Google Glass compelling had an opportunity to signup and pay \$1,500 to receive an “Explorer Toolkit.” This way, before producing a single consumer-ready Glass, Google was able to gage Initial Level of Interest (ILI) and gain other valuable feedback.



# Pretotyping classes // Pinocchio

Create a non-operational version of your product and use your imagination to pretend that it actually works to see if and/or how you would use it.

Jeff Hawkins created a wooden version of the **Palm Pilot** to test two key hypotheses: 1) Would I carry something with this form factor (i.e. pocket-sized) around? 2) What would I use it for? He learned that the form factor was just right and that he would use it primarily for calendar, address book and simple note taking.



# Pretotyping classes // Mechanical Turk

Before making a major investment in designing and building a complex mechanism or back-end, consider using human skills to simulate the desired outcome.

IBM tested if and how people would interact with a **speech-to-text** computer by simulating the actual hardware and software using a hidden typist. The users, were given a microphone and a monitor but no keyboard; when text appeared on the screen they thought that their commands were being processed by a computer, not a person.



# Pretotyping classes // One Night Stand

Offer a prototype version of your product or service on a very limited time basis to see if there is any interest before making any long-term commitments.

Sacrificing their own apartment for one night, **Airbnb** founders created a simple website in which they offered an alternative to hotel rooms: An air-mattress + simple breakfast for \$80/night (a bargain in San Francisco.) Much to their surprise, 3 people signed up very quickly and they collected \$240 on their first night. Airbnb is now valued at over \$10B!



# Pretotyping classes // Provincial

Before committing to launch a new product or service formally and publicly on a large scale, test it in a smaller, more private and informal context to see if people are interested in it.

**BestBuy** pitched a tent in *one* of their store parking lots and advertised locally for a new service (tentatively named NextPlay) to see if people would be interested in swapping old electronic gear in exchange for store coupons. It worked, and the service is now available in all stores (and not in tents!)



# Pretotyping classes // Infiltrator

Take advantage of the customer traffic in an existing store (brick- and-mortar or online) to stick an artifact of your idea (it could be a one off, even an empty box) on the shelves to see if people would buy it.

With a used employee shirt bought on eBay to look like an IKEA worker, Upwell Labs' founder sneaked in a few prototypes of his new product into an IKEA store and put them on display to see if people would buy them. They did! He proved that his new product would sell in a store ... without owning a store.



# Pretotyping classes // Impostor

Use an existing product or service as a starting point for your new product. Most new products or services are not completely new and different from existing ones. Many times there are other products and services that are close enough and, with some work, can be used to impersonate the new product you have in mind.

Tesla's Elon Musk took an existing car (a Lotus roadster) that was close enough to the all-electric roadster he had envisioned, ripped off the internal-combustion engine, put an electric engine in it (along with slightly different body) and drove it around. Now he had an artifact, a really sexy and fast one, to show around. People were obviously interested in the new car; but would anyone be interested enough to buy one? He needed data not opinions. So he asked people who expressed interest if they were interested enough to write him a \$5,000 deposit check to be on the waiting list for one.



# Pretotyping classes // MVP

Create a first iteration of your product with the absolute minimum set of features that would make it valuable and useful—at least to early adopters.

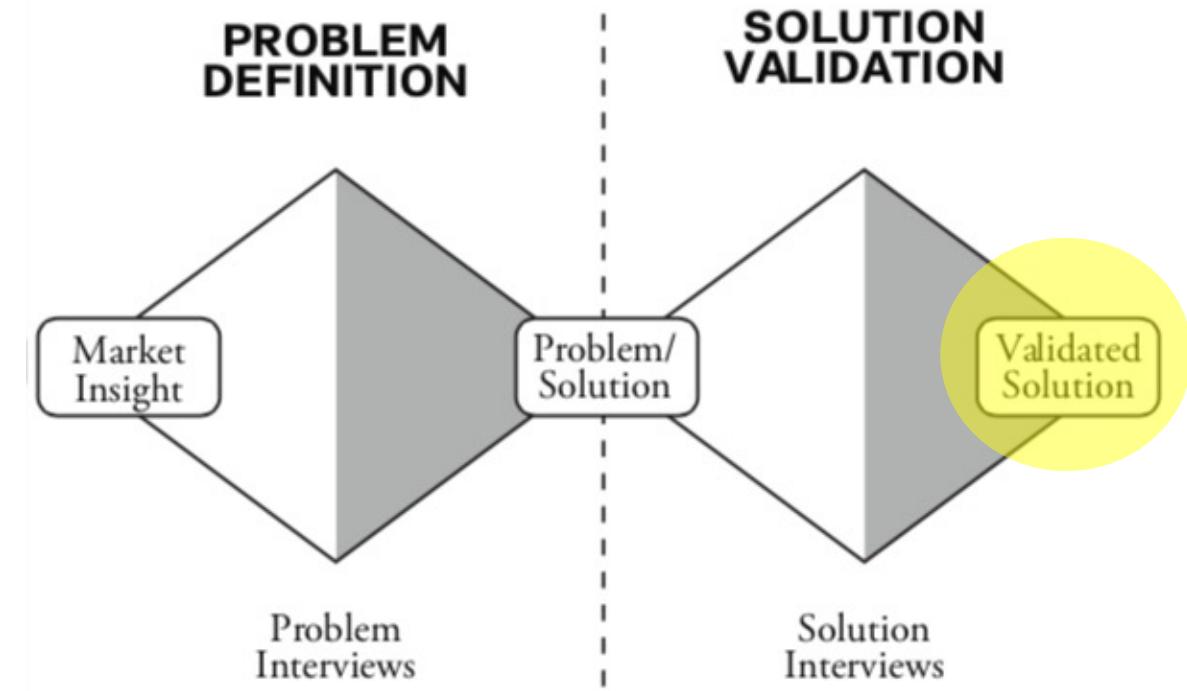
The first version of the **iPhone** did not support cut-and-paste, it offered a very limited number of apps, it did not support notifications or the über-popular Microsoft Exchange email back-end; and it required iTunes to activate/use it. But people wanted it so much that they did not care about the missing functionality—a great indicator of interest.



# Solution // Decision

At the end of each solution validation cycle - ask to yourself:

- 1) Did you find a good (40% Rule) solution?
- 2) Is it adequately refined?
- 3) Does it stand out from the others?
- 4) Did you find real interest in it?
- 5) Do you have the impression that a different solution may gather greater interest?
- 6) Did you get pre-orders? Emails?
- 7) Did you find Early Adopters?



Decide: Refine-Repeat or close  
Problem/Solution fit!

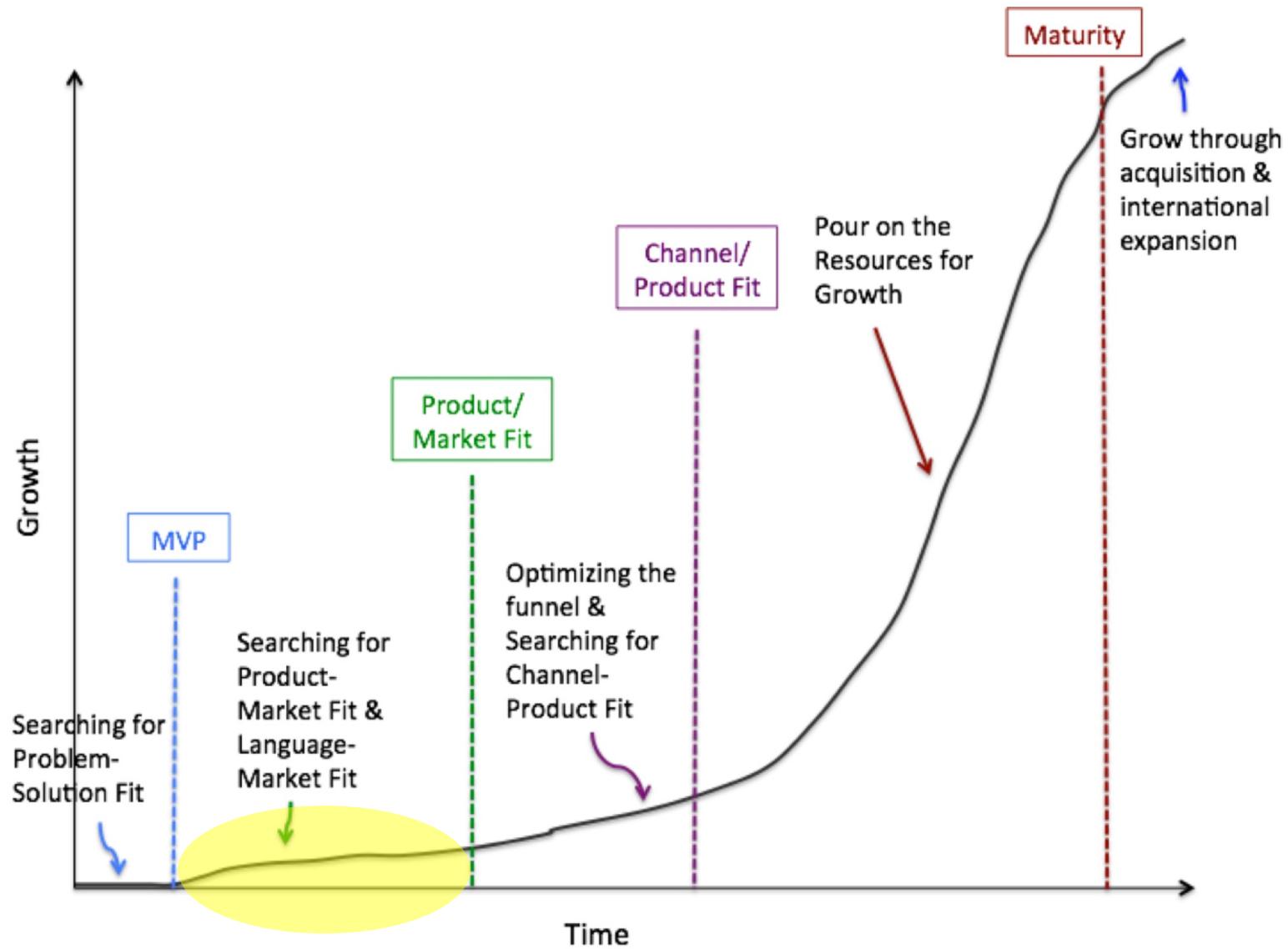
If you get there, you (think you) have  
a **Problem-Solution Fit**

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In other words, you have beaten the Level 1 Boss – you can now enter Level 2.

# Level 2 - Product/Market Fit



# Product Market Fit

The overlap between your product and the market demand is your opportunity.



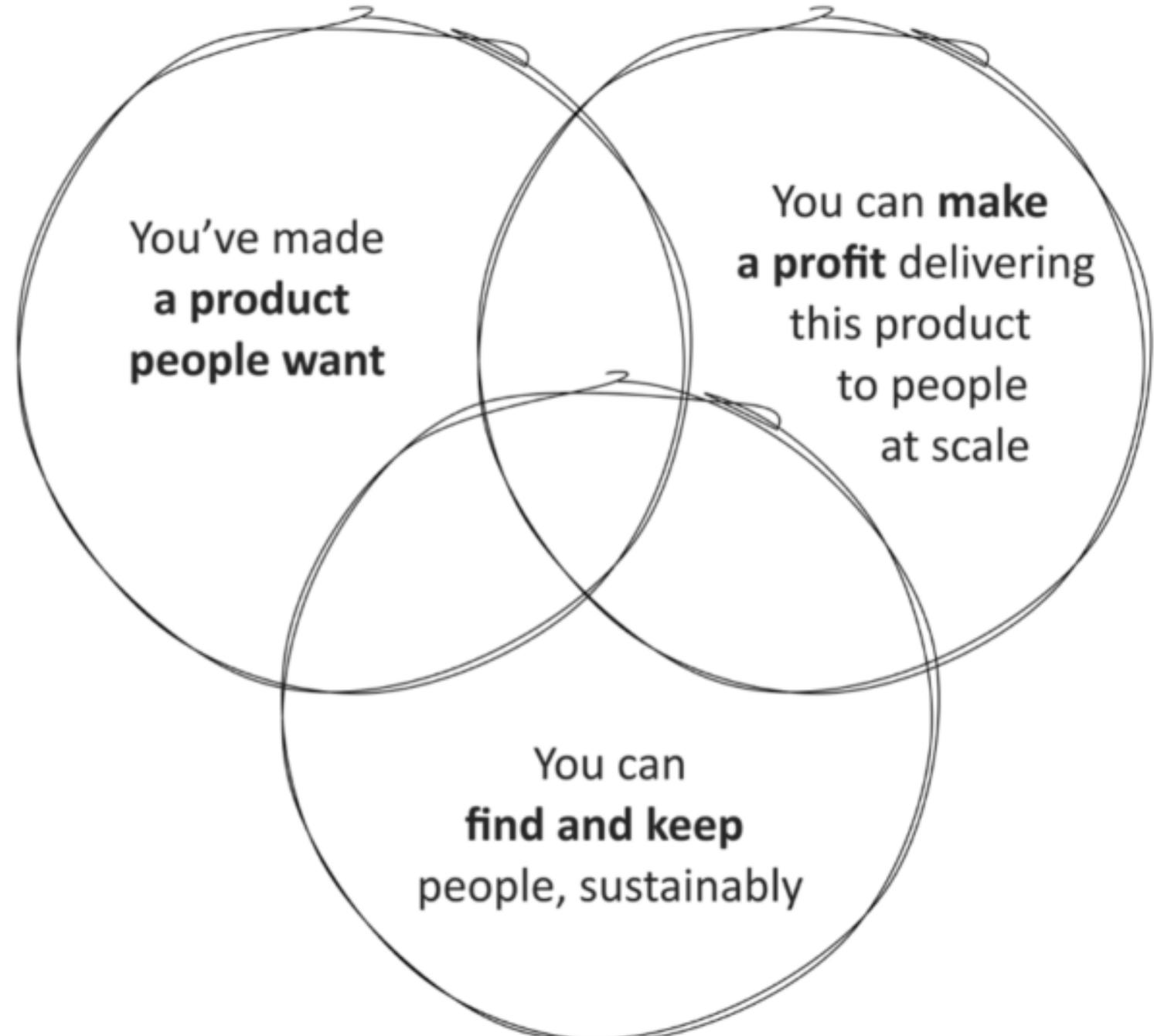
How much missed opportunity do you have?

# Product Market Fit Process

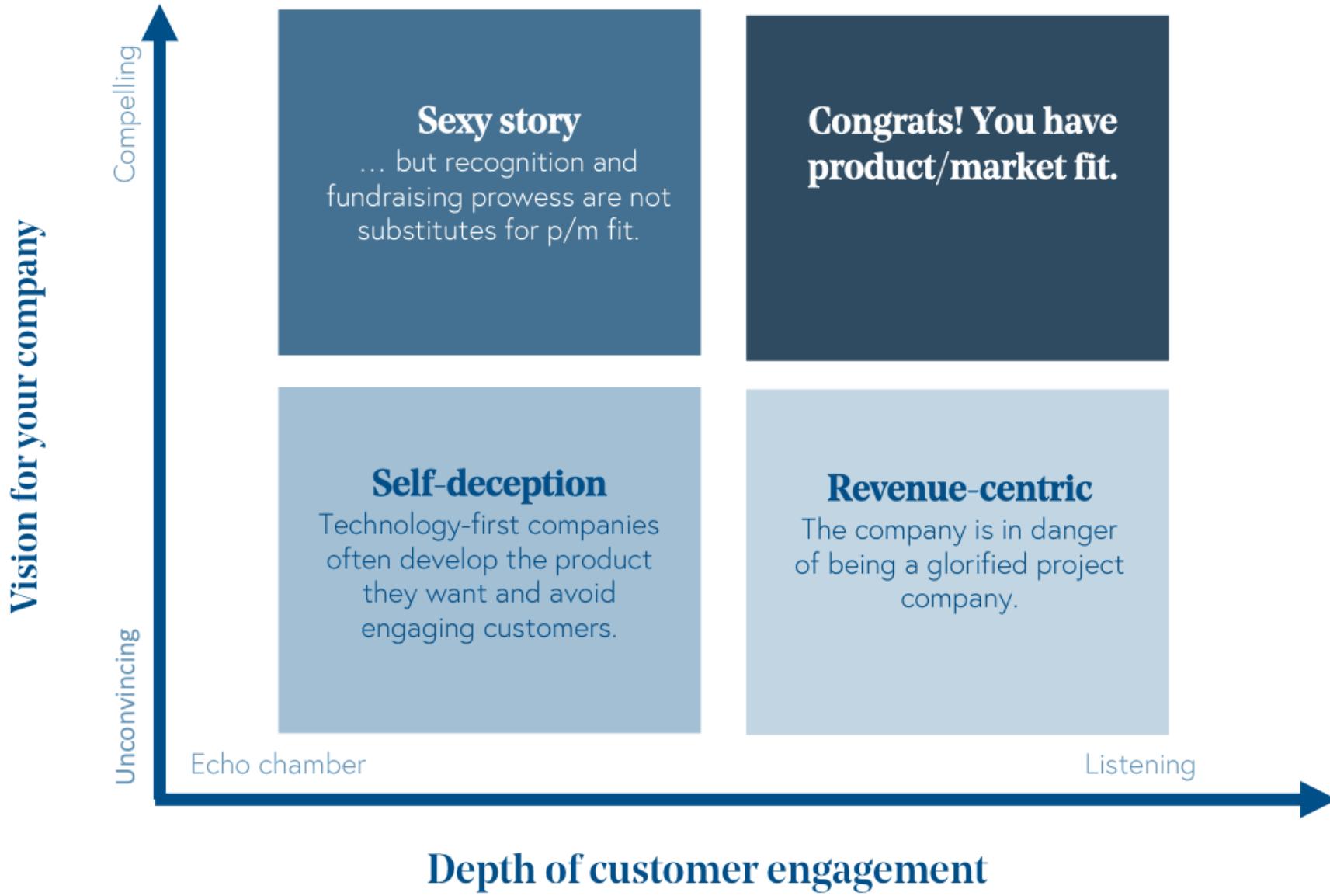
Following the process, achieves the 3 aspects of PMF - Desirability, Viability, Feasibility



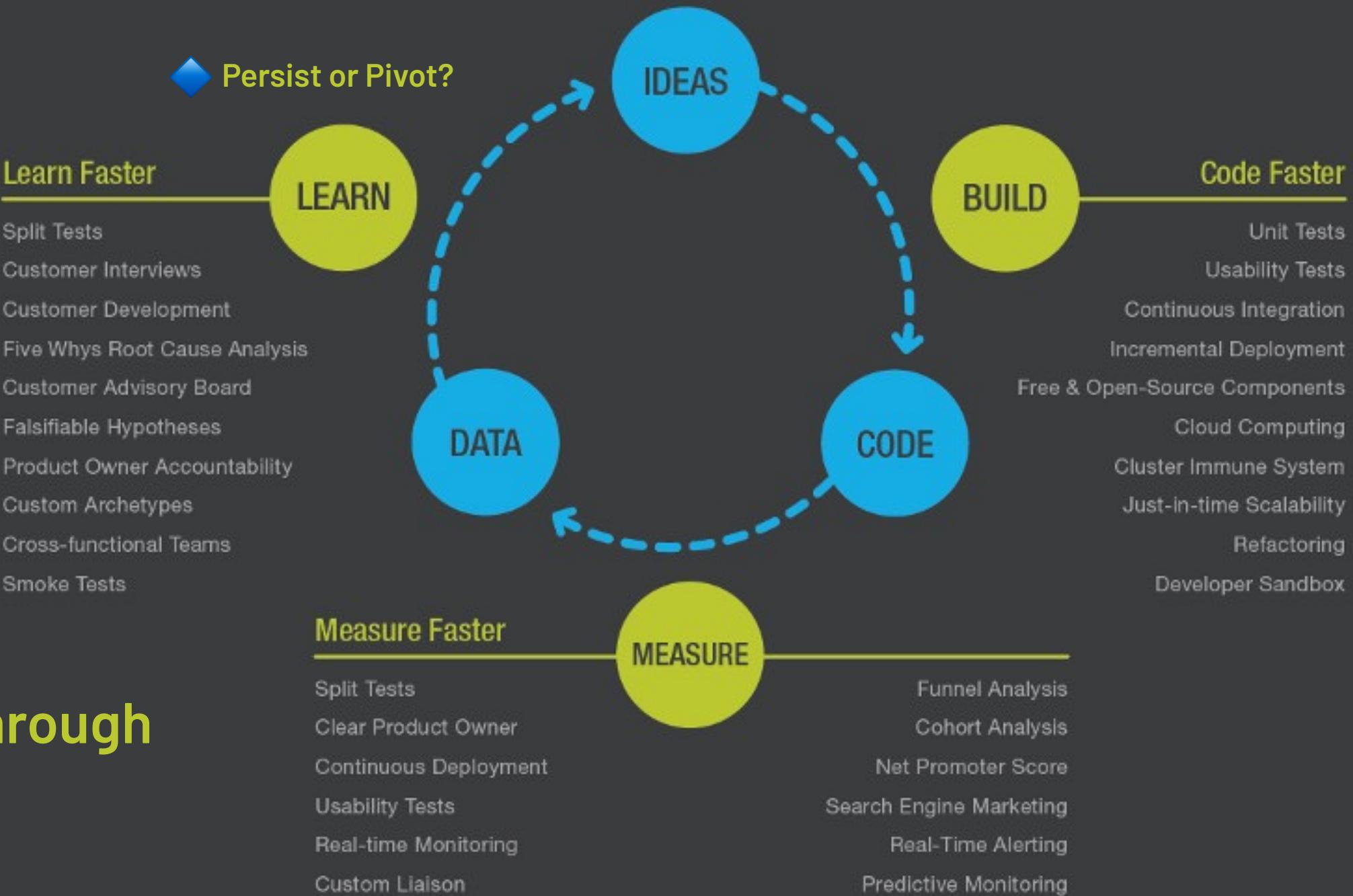
When do I have  
**True Product-  
Market Fit?**



# The four quadrants of product/market fit



# Driving through the PMF



# The Product/Market Fit Canvas

Designed by:

On:

## CUSTOMER SEGMENT:

### Characteristics & jobs to be done

WHO is the typical customer for your product/service and what job(s) he/she is trying to get done?



<>

### Problems & needs

WHY do your customers need to use your product/service in order to get their job(s) done?



<>

### Channel

HOW do your customers acquire your products/services?



<>

### User experience

WHAT does your customer do with the product to get real value?



<>

## PRODUCT OR SERVICE:



### Alternatives

The approach(es) your customer is currently taking to get their job(s) done, including the tools they are using



### Key features

The essential elements that your product or service must have to meet your customers' needs and solve their problem



### Value for the channel

The value your channel will get by offering and selling your product



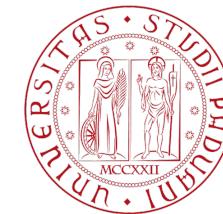
### Key metrics

The key things to measure to know if your customer is getting real value. These key metrics will help you to know if you've achieved Product-Market Fit



StartUp in ICT  
University of Padua  
February-June, 2024

WhatsApp group



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