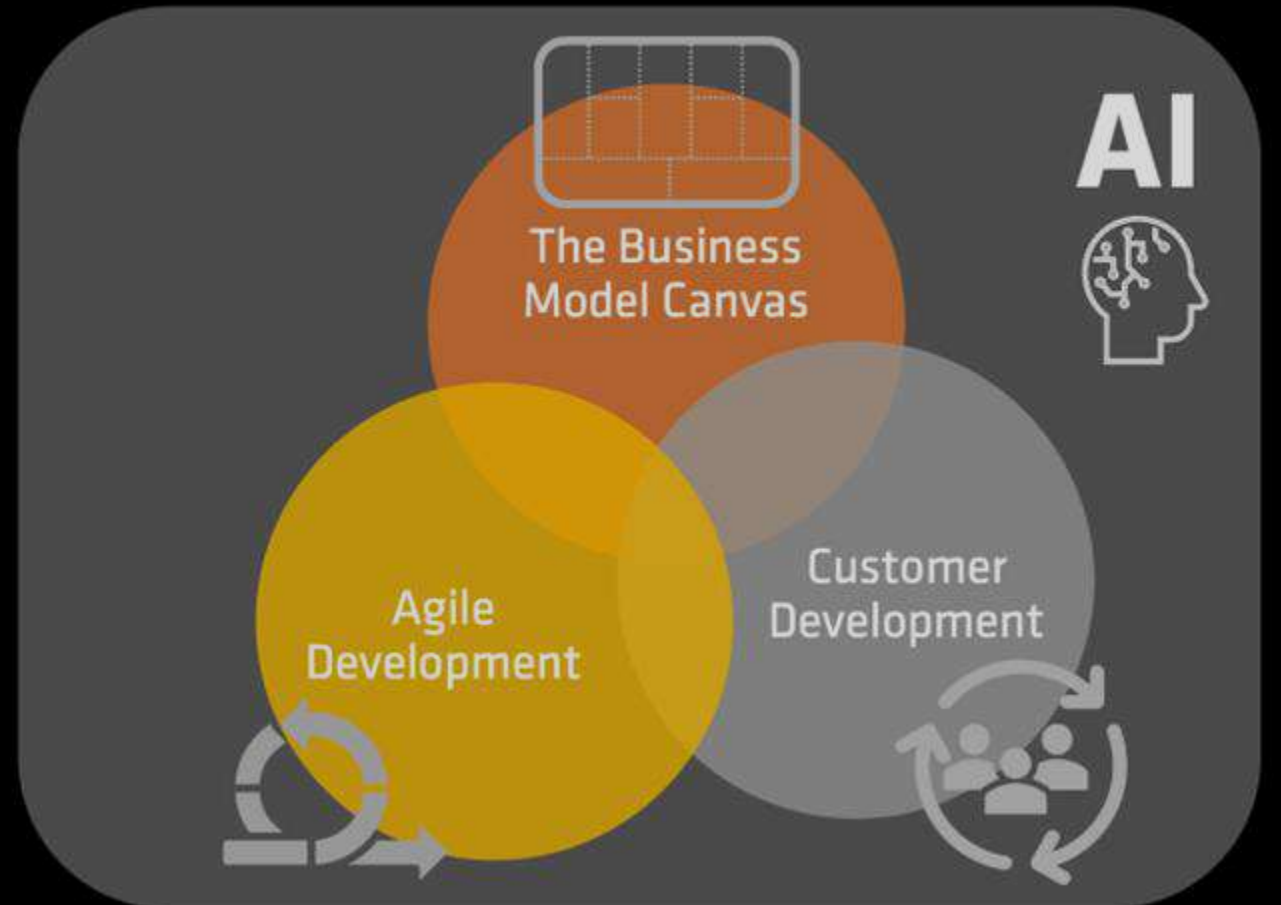


Entrepreneurship, Innovation and Technology Transfer Value Proposition

Luis Caldas de Oliveira



TÉCNICO LISBOA

Please close your computer and mobile
phone



Where are we?

Technology Assessment

Key Concepts

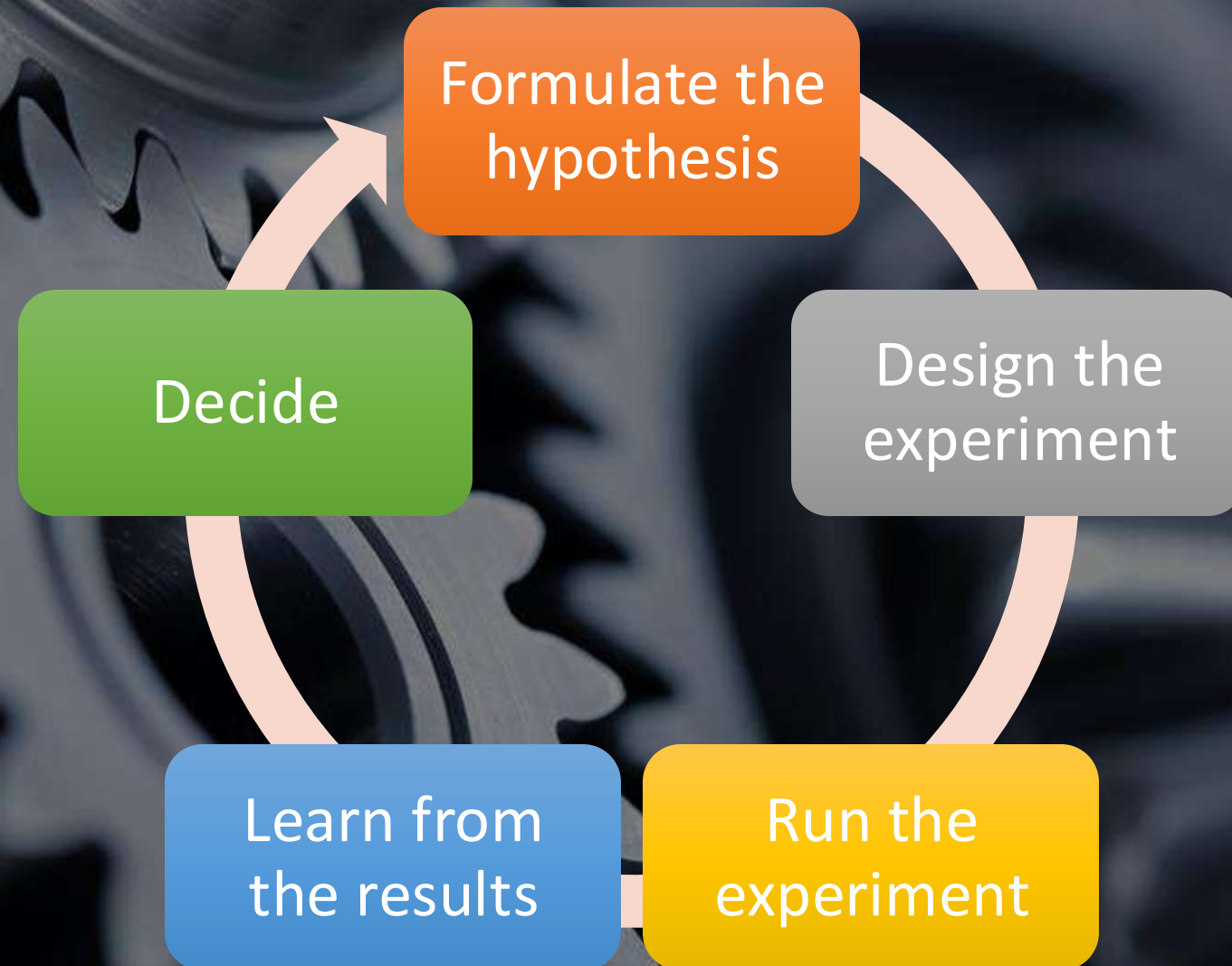
Innovation Mindset

Business Model Canvas

Testing Hypotheses



Testing Hypotheses



The Business Model Search Tool

[Click to Copy](#)

Business Model Search Tool

Team Members

Member	Hypotheses (#)	Hypotheses (%)	Experiments (#)	Experiments (%)	Interviewer (#)	Interviewer (%)	Scriber (#)	Scriber (%)	Insights (#)	Insights (%)
Ana	2	20%	2	100%	1	50%			1	100%
Beatriz	2	20%			1	50%	1	50%		
Carolina	2	20%					1	50%		
Diogo	2	20%								
Eduardo	1	10%								
Filipe	1	10%								

Hypotheses

Status	Total	VP	CS	CH	CR	RS	KP	KA	KR	CO
All	10	2	2	1	1	1	1	1	1	1
Waiting	7		1	1	1	1		1	1	1
Running	0									
Invalidated	2	1					1			
Validated	1	1	1							

Status	Total	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14
Formulated	10	2		7	1										
Active	9	2	2	8	7	7	7	7	7	7	7	7	7	7	7
Invalidated	2			1	1										
Validated	1				1										

Experiments

Status	Total	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14
Started	2			2											
Running	2			2	2	2	2	2	2	2	2	2	2	2	2
Invalidated															
Validated	1				1										

Interviews

	Total	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14
Total	2			1	1										
Exp Tested	3			3											
Exp Invalidated															
Exp Weak Val	1			1											
Exp Strong Val	2			2											

Insights

	Total	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	W14
Total	1				1										
Low Reliability	1				1										
Medium Reliability															
High Reliability															
Low Urgency															
Medium Urgency															
High Urgency	1				1										



Where are we?

Technology Assessment

Key Concepts

Innovation Mindset

Business Model Canvas

Testing Hypotheses

Value Proposition



Use your computer or mobile phone



Value Proposition Quiz

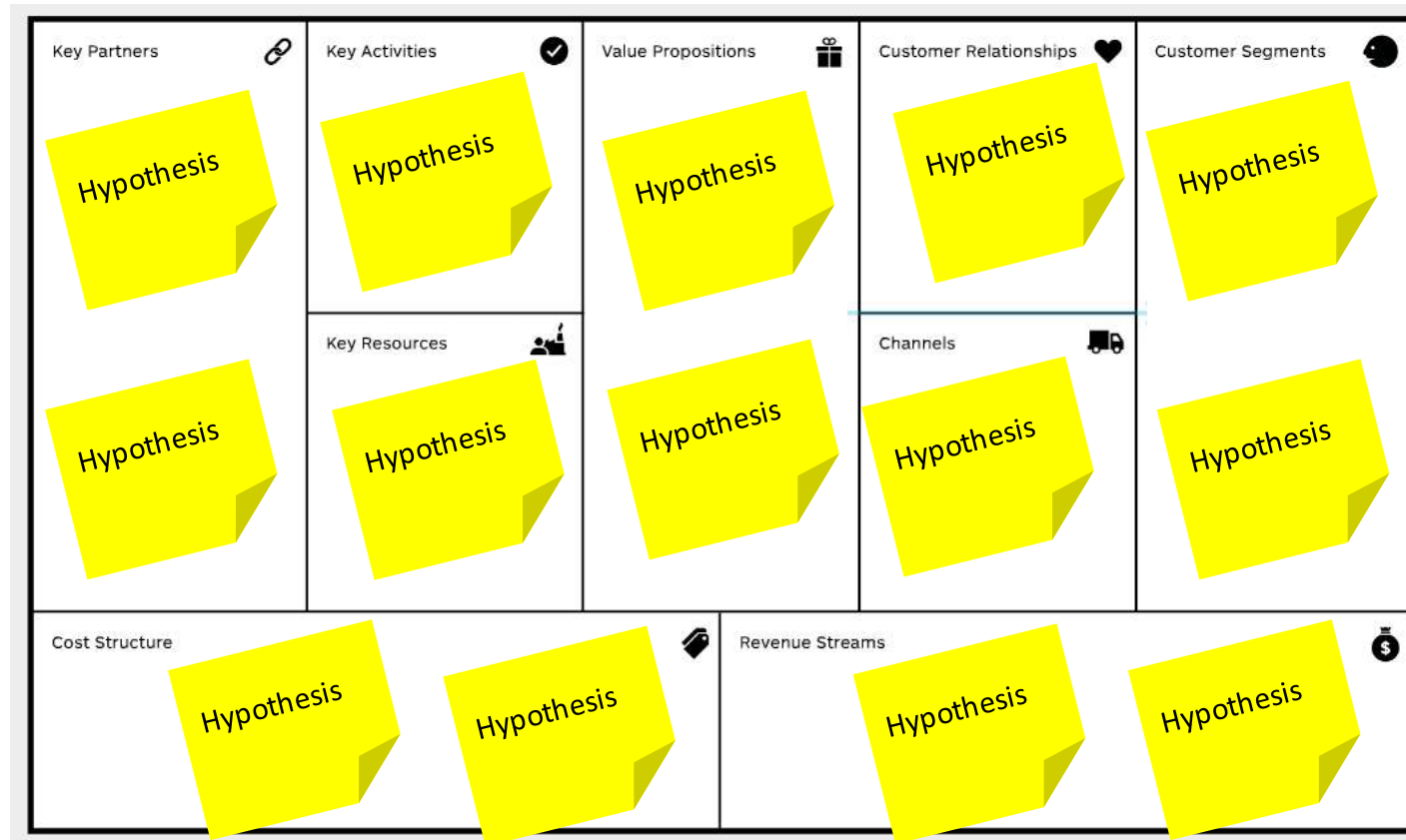
<https://bit.ly/eitt2425vp>



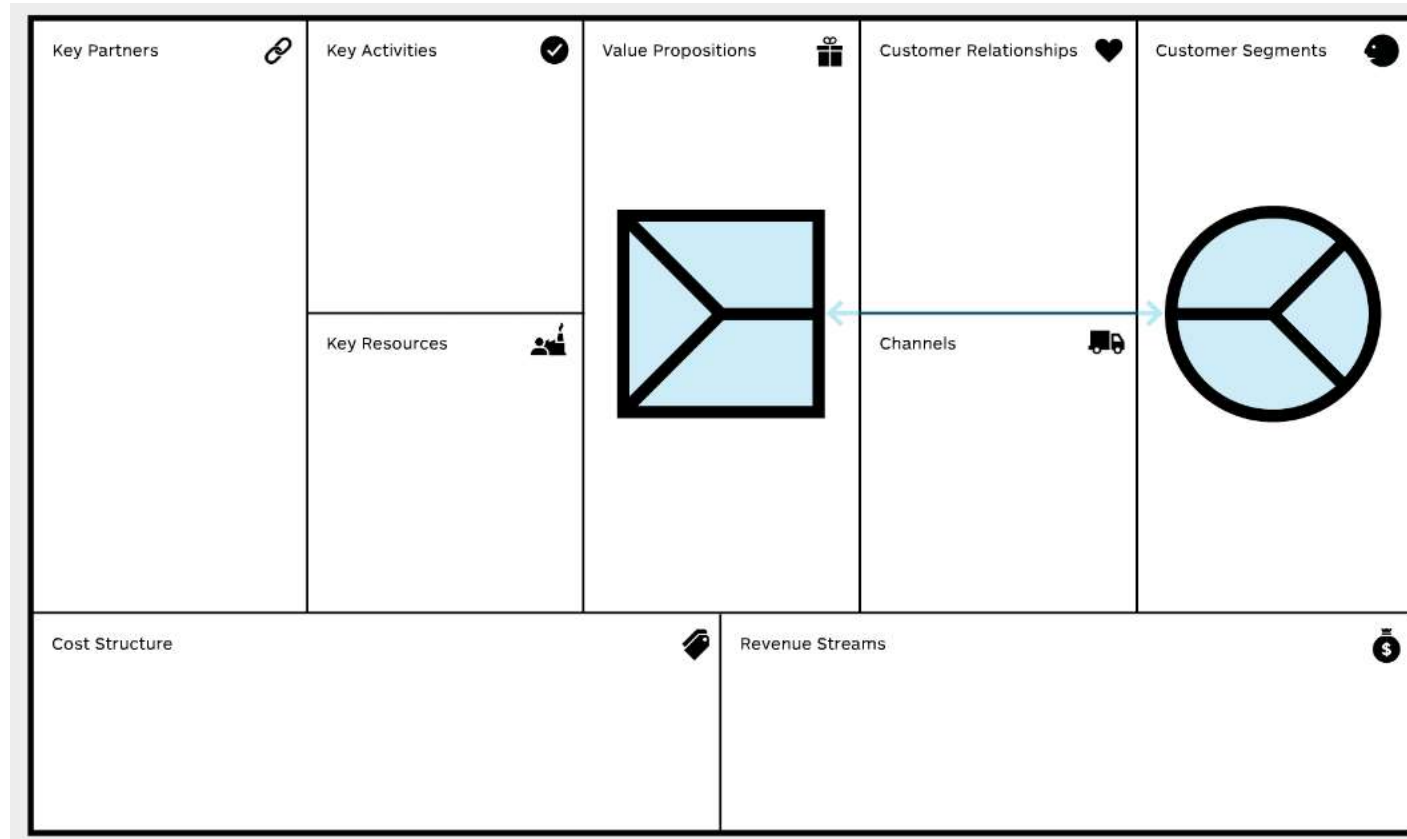
Please close your computer and mobile
phone



Business Model Hypotheses



Value Proposition Hypotheses



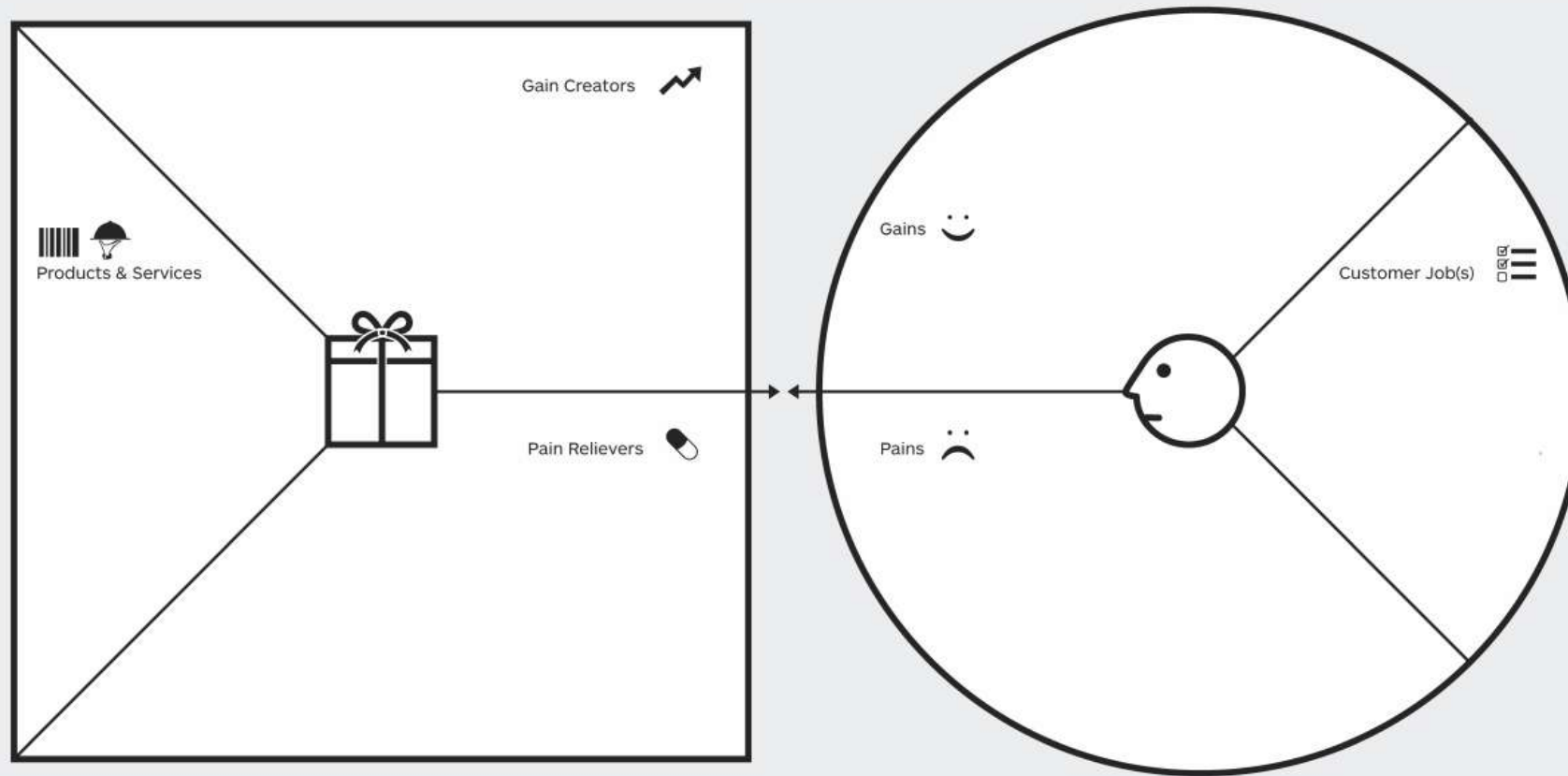
A woman with long dreadlocks, wearing a denim jacket and a backpack, is smiling as she interacts with a food stand. A worker wearing black gloves is handing her a burrito. The stand has various food items and a menu board in the background.

Value Proposition

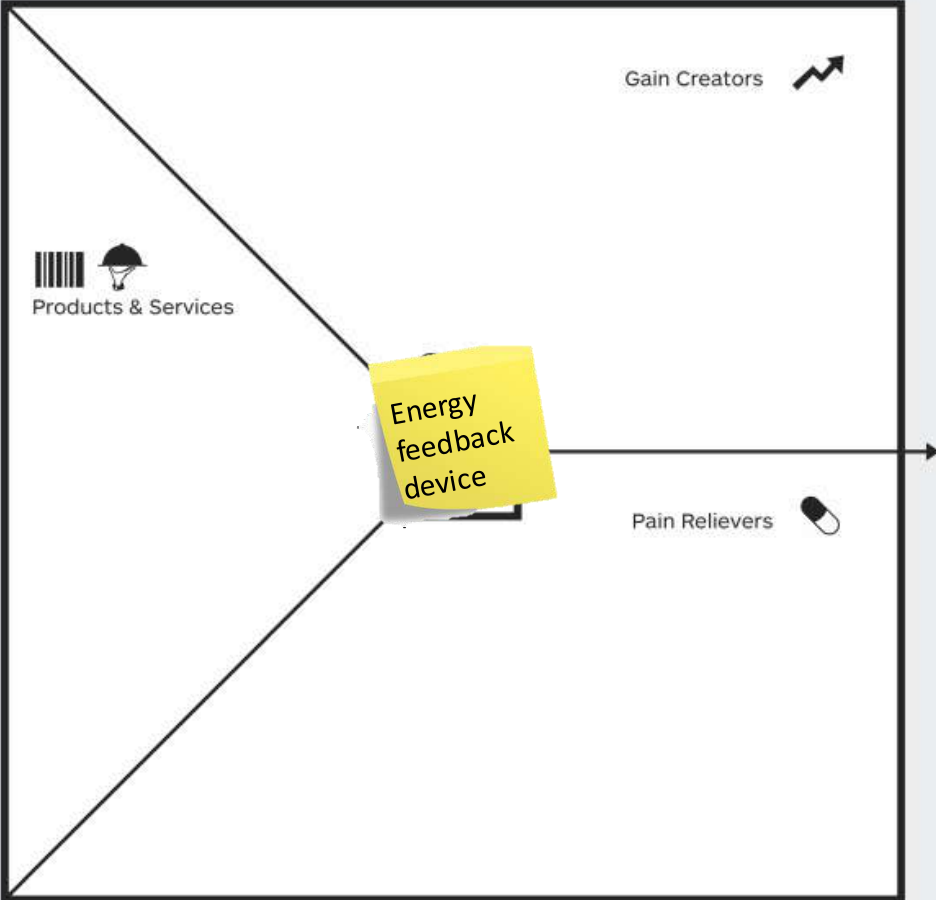
The unique value a company offers to its customers.



Value Proposition Canvas



Value Map



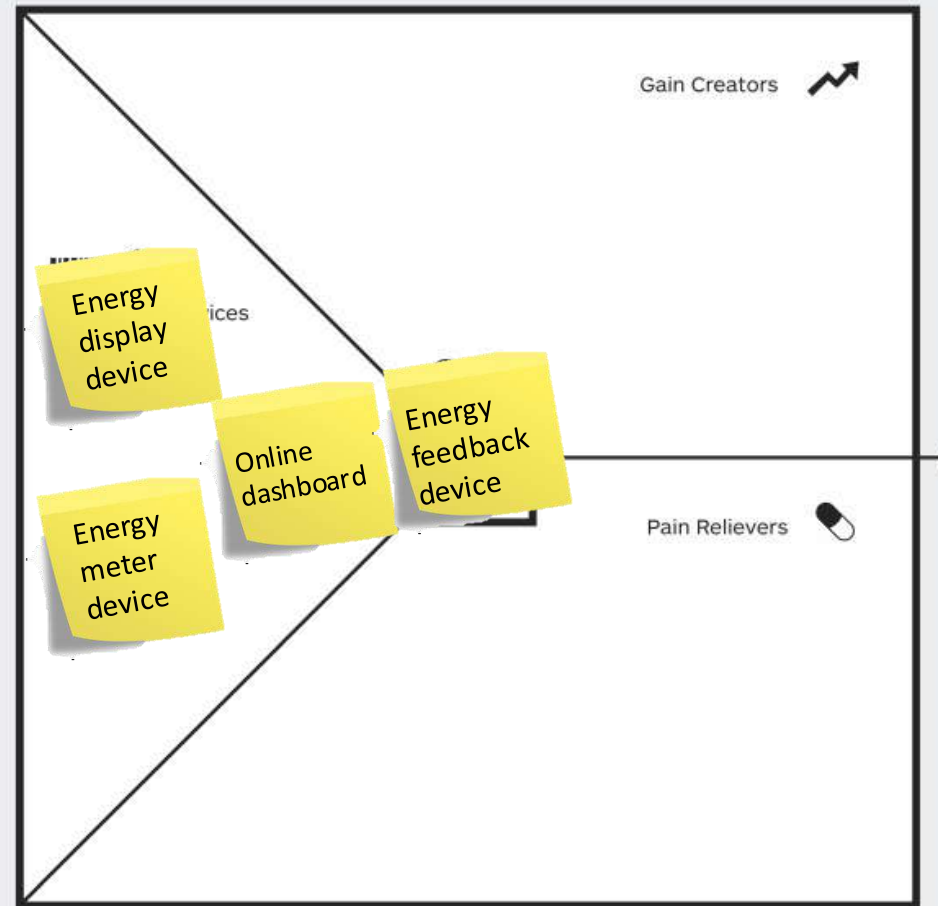


Product Feature

A characteristic of a product that is designed to meet the needs and preferences of customers



Products and Services

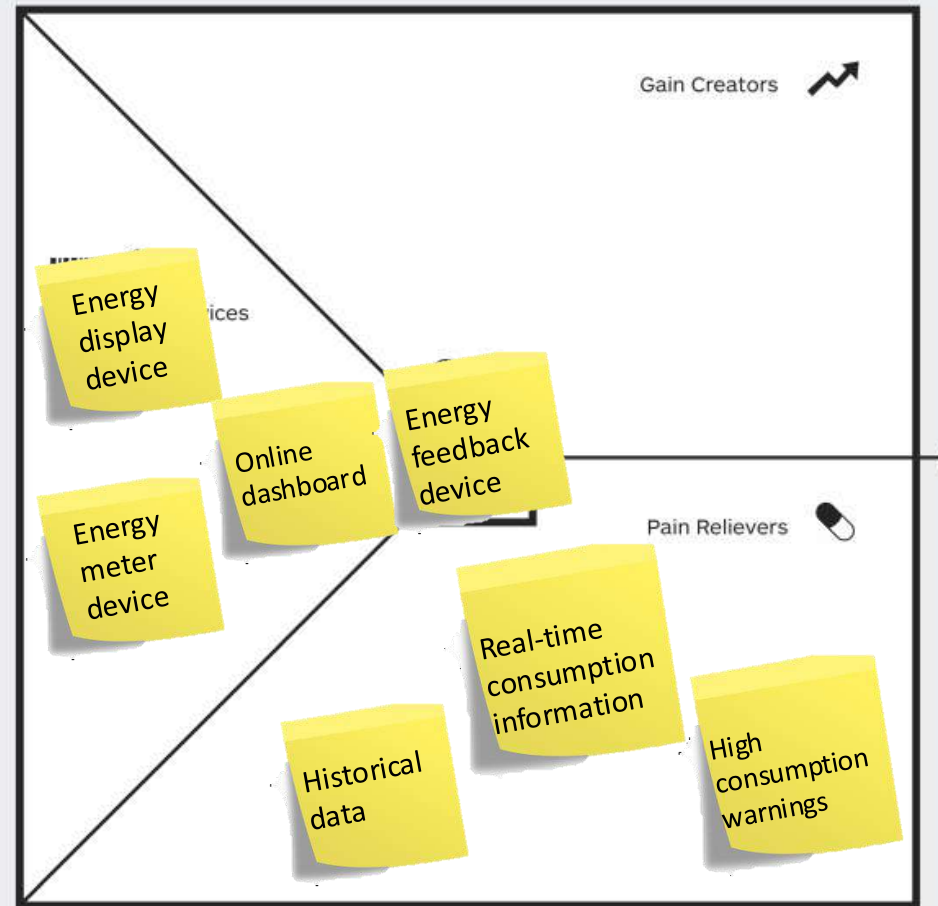


Pain Reliever

A solution or feature that directly addresses and alleviates specific problems or challenges customers face



Pain Relievers



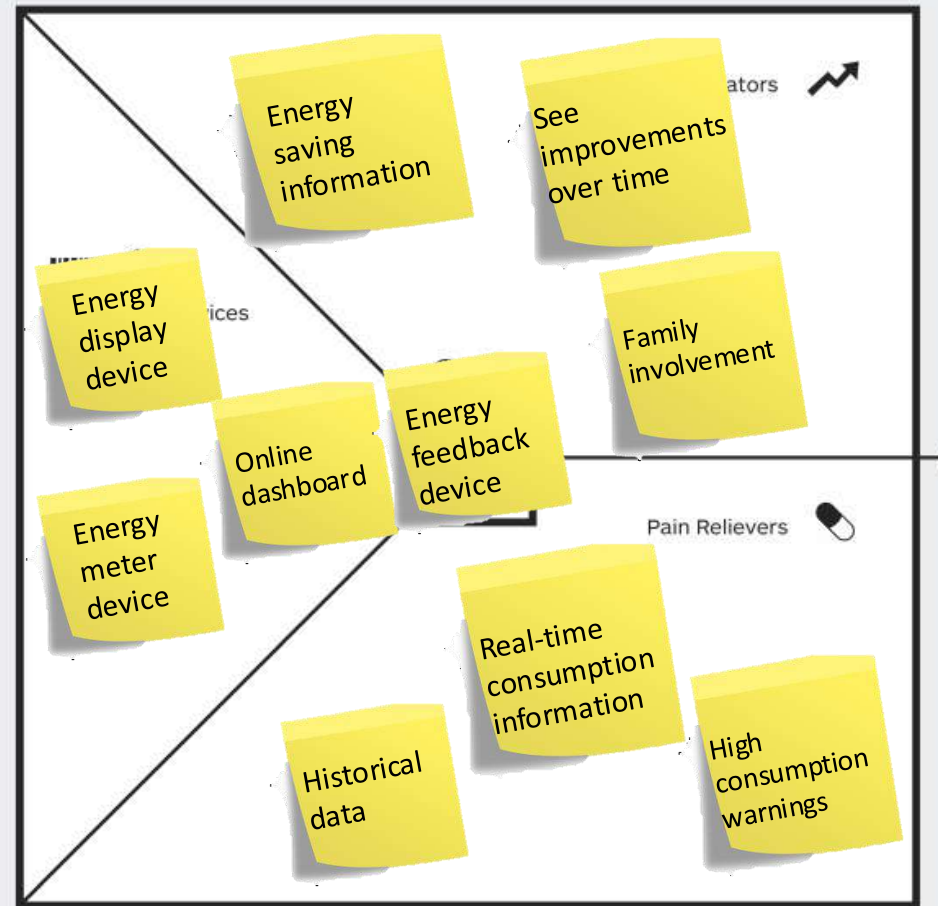
A group of people giving thumbs up, symbolizing approval or success. The image is slightly blurred and has a dark overlay.

Gain Creator

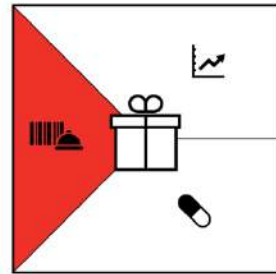
A feature of a product or service that generate benefits or positive outcomes for customers



Gain Creators



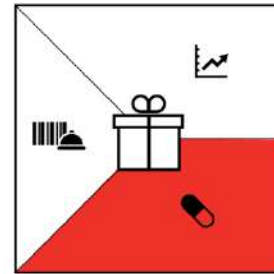
Rank Products and Services, Pain Relievers and Gain Creators



+
Essential

↕

Nice to have
-



+
Essential

↕

Nice to have
-



+
Essential

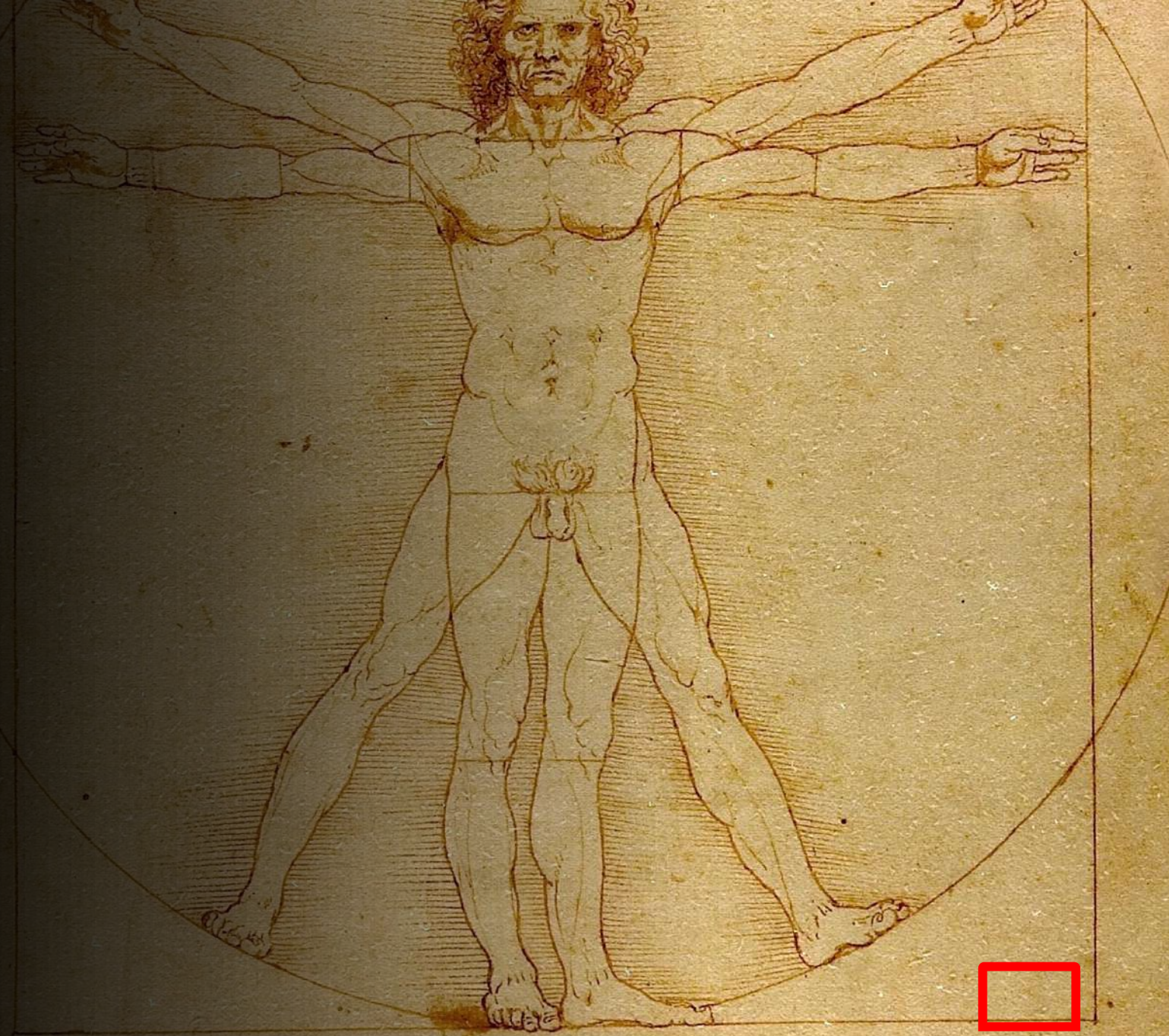
↕

Nice to have
-



Design Thinking

A user-centered approach to problem solving





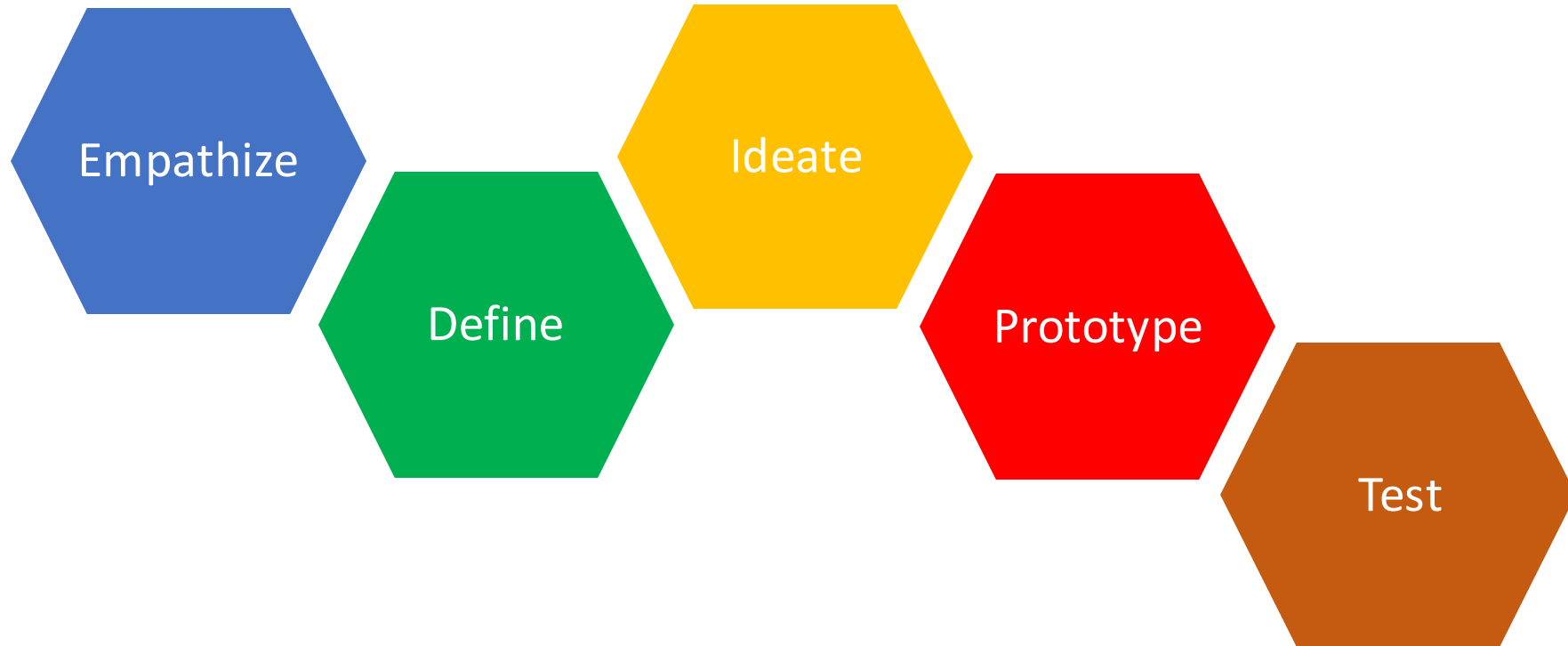
Wicked problem

An ill-defined problem, often with contradictory or changing requirements, for which there is no single solution

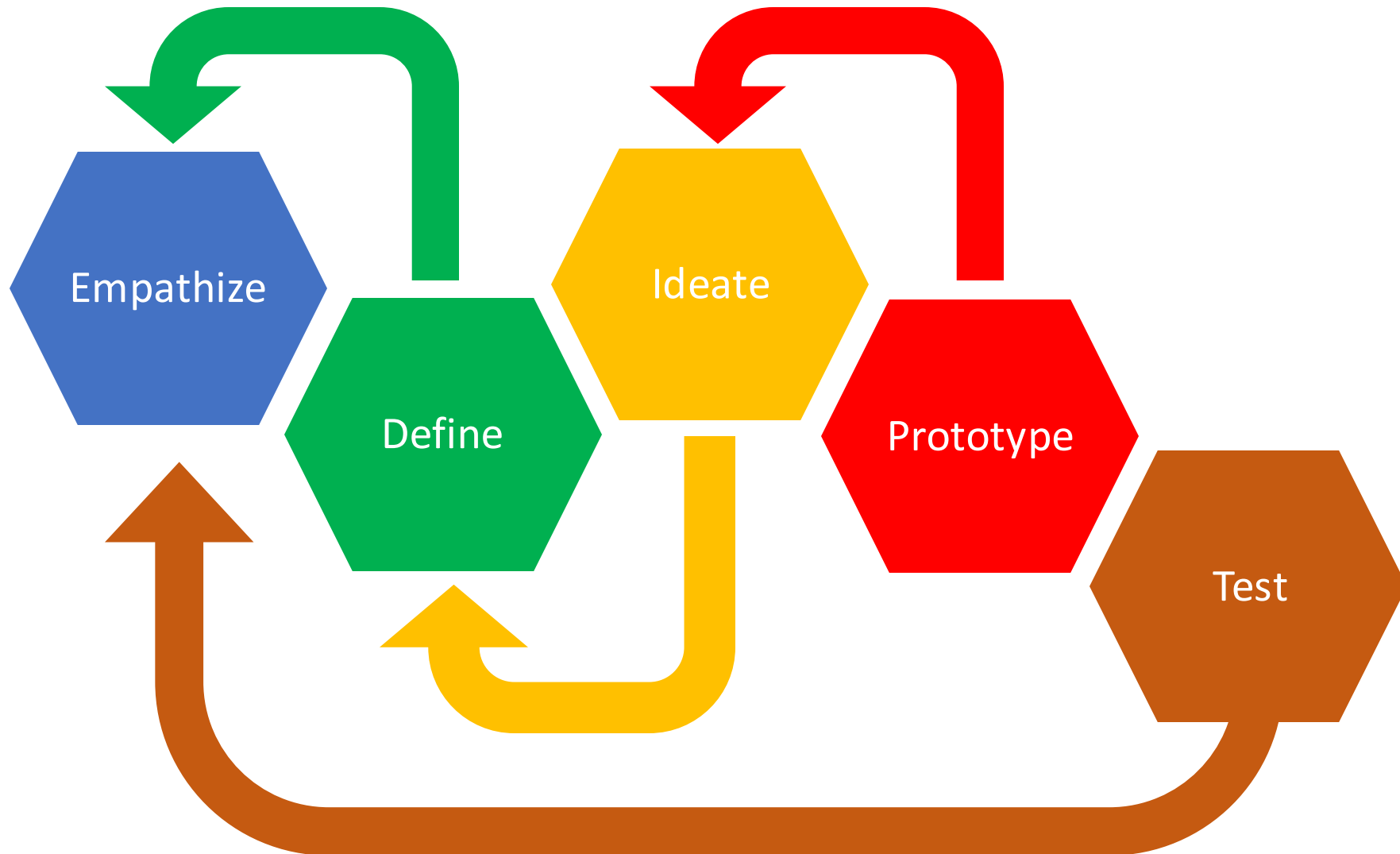
A large part of the problem solving is actually defining the problem



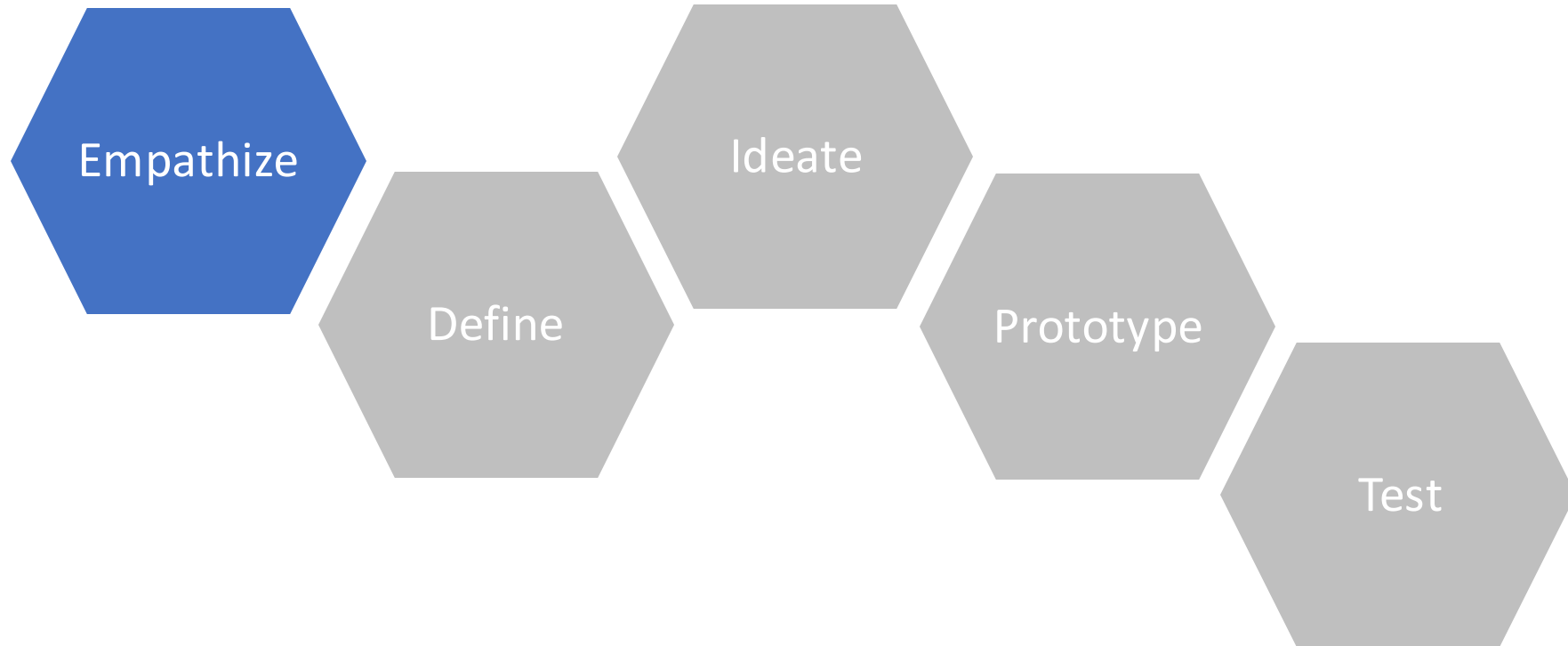
The 5 Steps of Design Thinking



A non-linear iterative process



Empathize



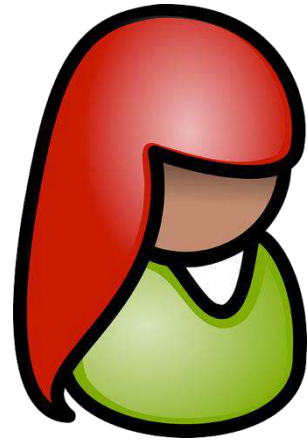
Put Yourself in Your Customer's Shoes



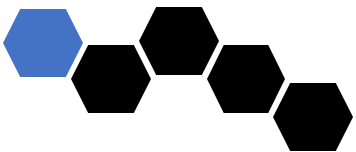
Photo by [Nicholas Kampouris](#) on [Unsplash](#)



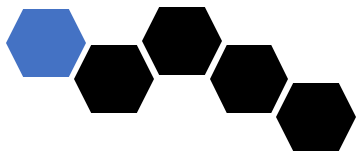
What is a Persona?



“Is a portrait of a fictional but realistic individual merging the characteristics of similar people”



What makes a good Persona?



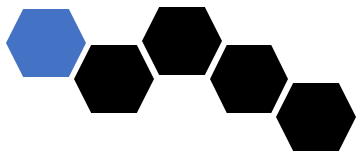


Customer Archetype

A detailed profile that represents a specific segment of a business's target audience, including the key characteristics, behaviors, and needs of that group



Give your persona a Face: Traveler



Persona Canvas

Empathize with your customer

My Photo

Select a photo of me



Who Am I?

My social environment, personality and dreams



Team

Reasons to Engage

Why should I be interested in you?



My Name

Give me a name



Jobs I Need To Do

What I seek to accomplish



Reasons Not To Engage

Why should I ignore you?



Customer Segment

Who do I represent?



<https://hbr.org/2016/09/know-your-customers-jobs-to-be-done>



Persona Canvas

Empathize with your customer

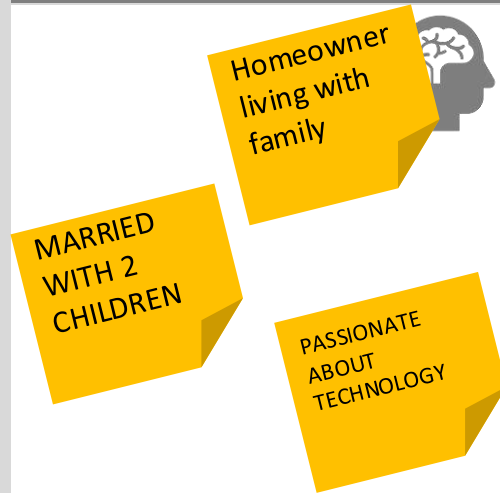
My Photo

Select a photo of me



Who Am I?

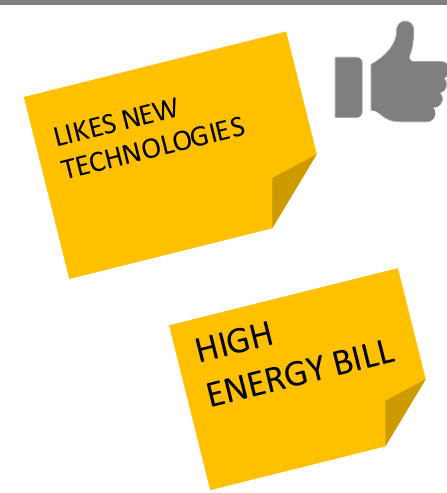
My social environment, personality and dreams



Team

Reasons to Engage

Why should I be interested in you?



My Name

Give me a name



Jobs I Need To Do

What I seek to accomplish



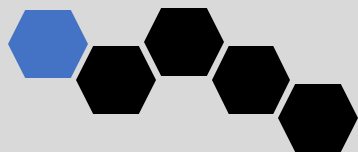
Reasons Not To Engage

Why should I ignore you?

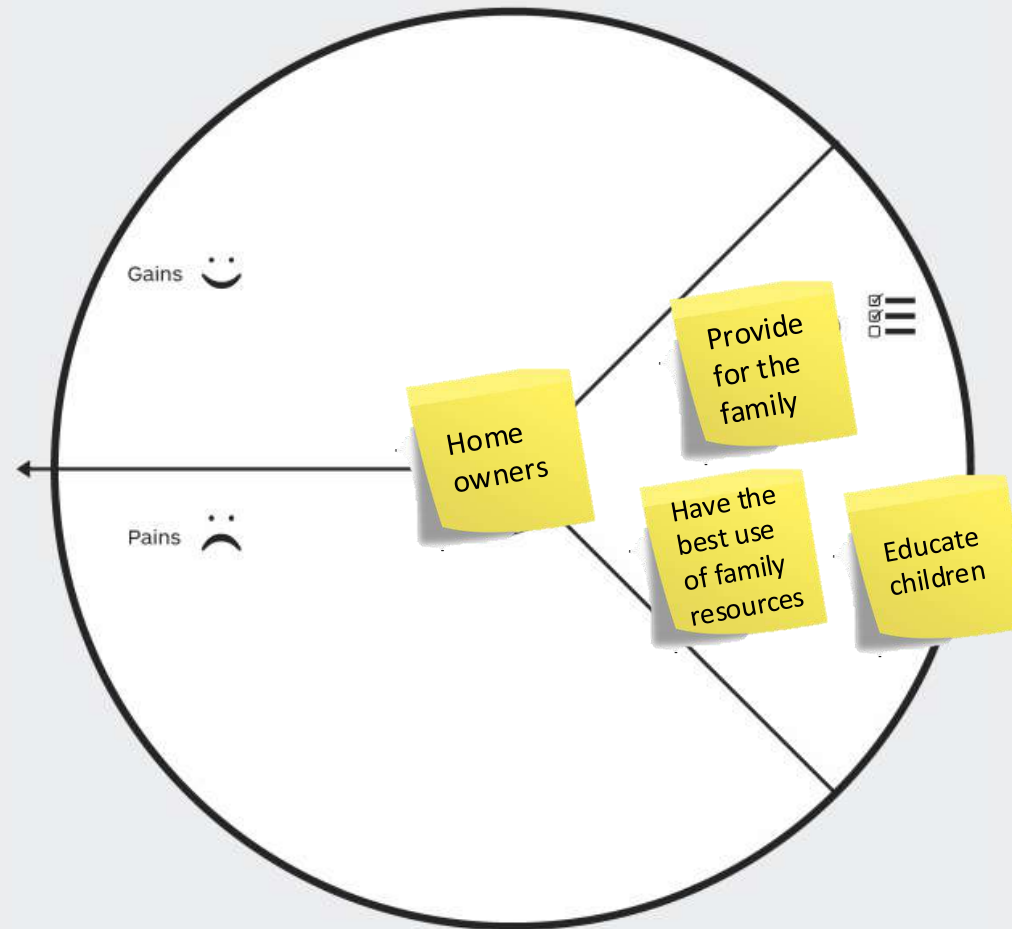


Customer Segment

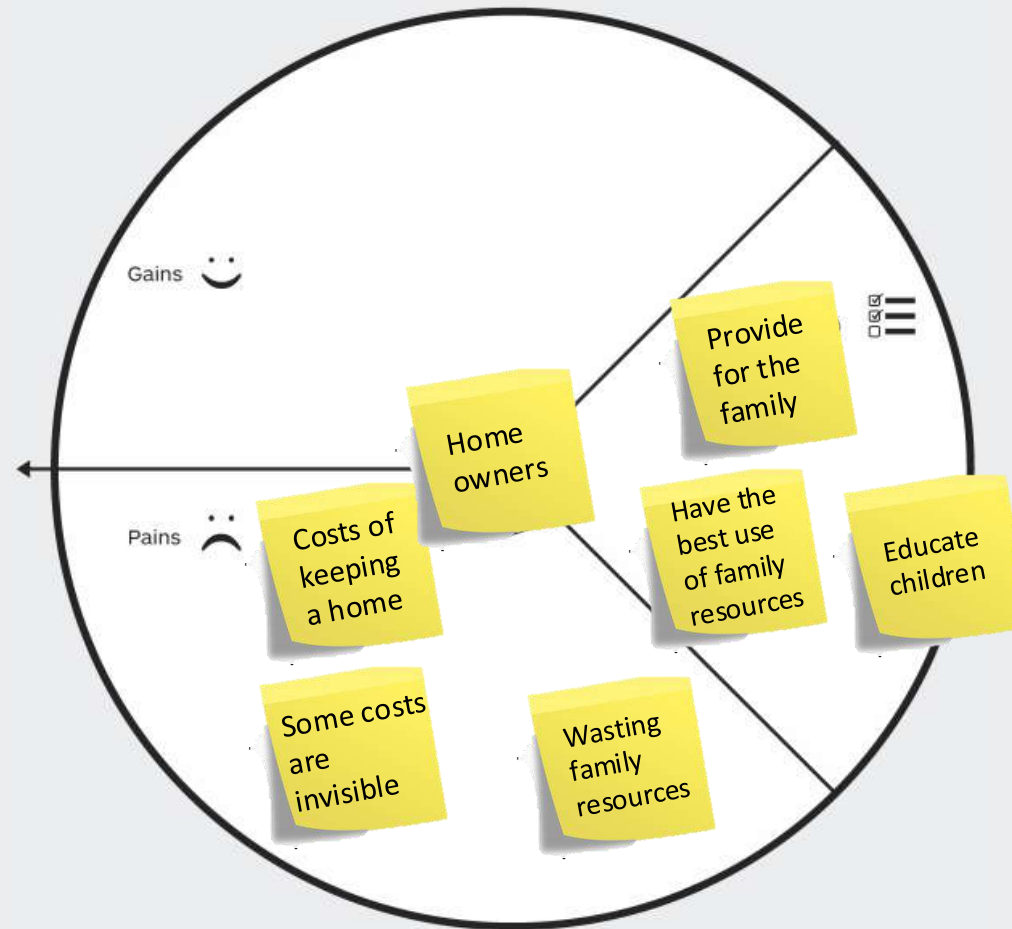
Who do I represent?



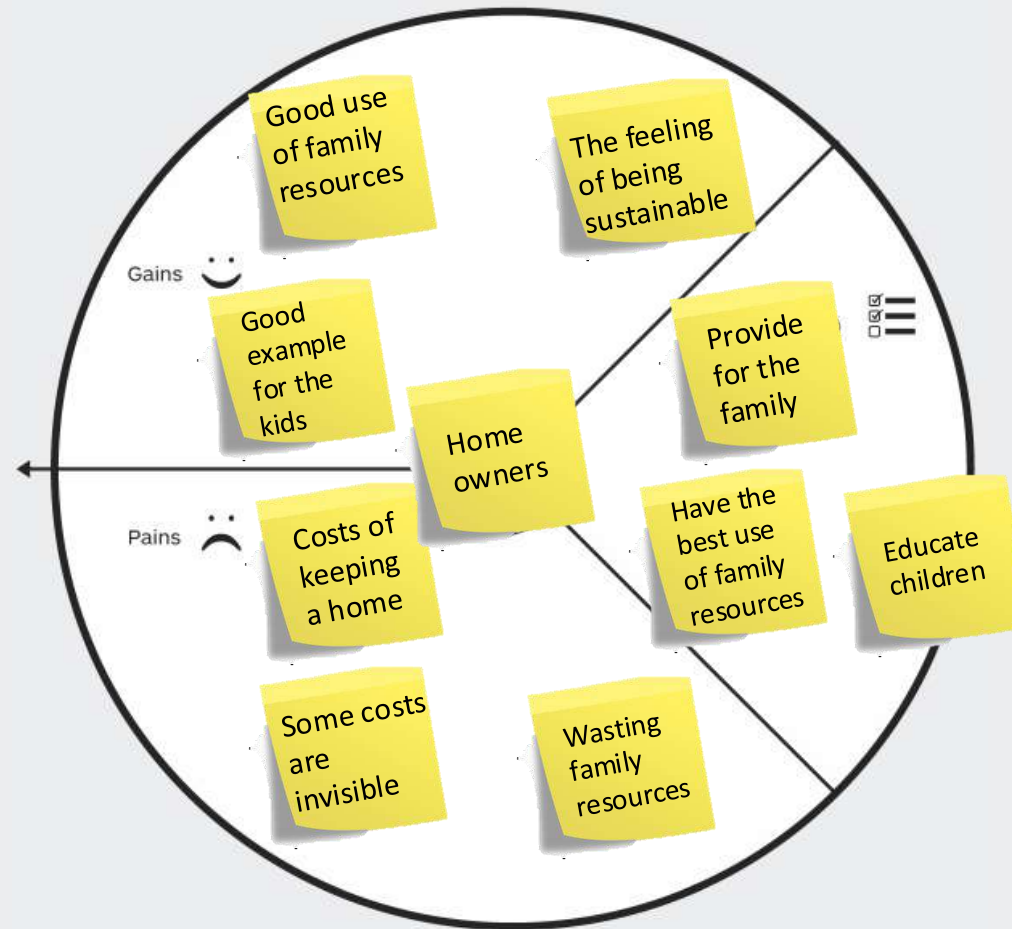
Customer Jobs



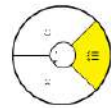
Customer Pains



Customer Gains

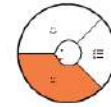


Rank Jobs, Pains and Gains



Job importance

Rank jobs according to their importance to customers.



Pain severity

Rank pains according to how extreme they are in the customers' eyes.

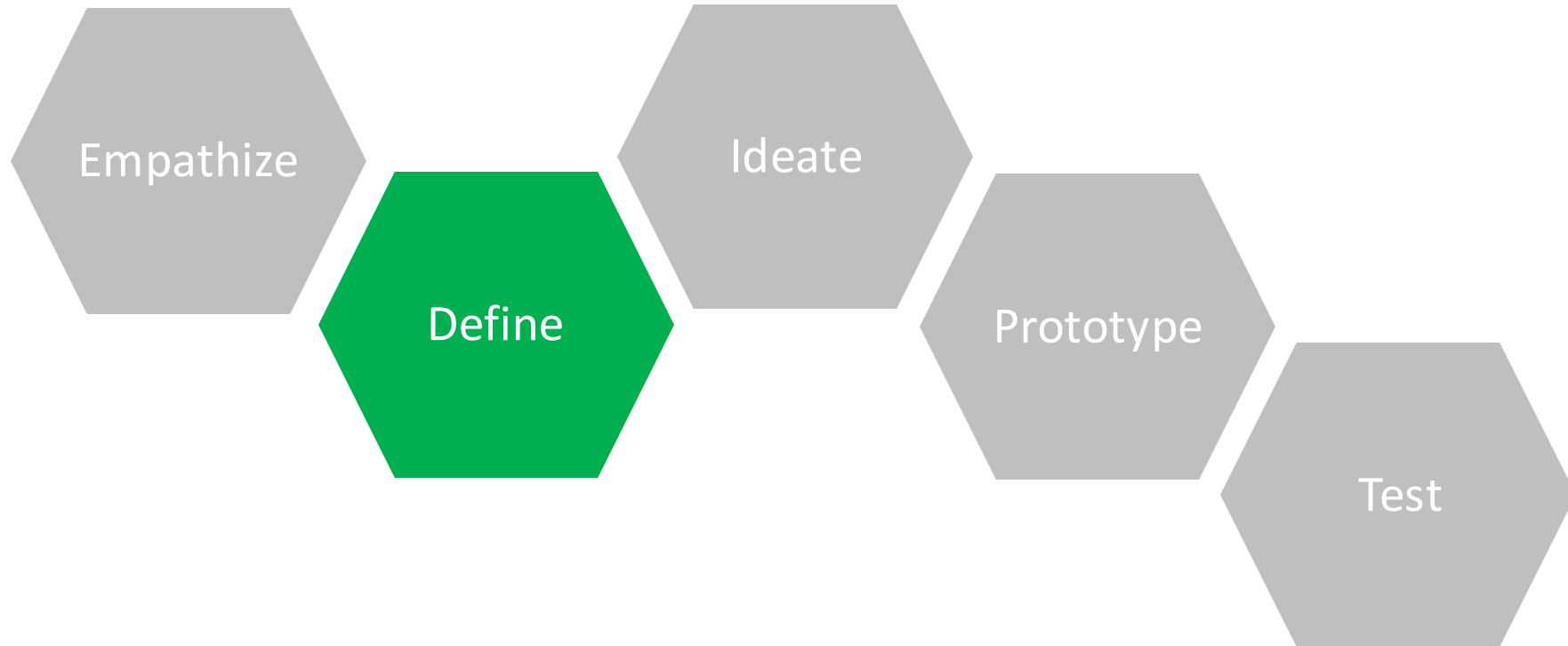


Gain relevance

Rank gains according to how essential they are in the customers' eyes.



Define



Problem Definition Canvas

Identify and analyze your problem

1. Understand the problem

Where and when does this problem occur?

Explain the problem in simple words. Describe a situation that illustrates the problem.



2. Causes for the problem

Why the problem exists?

The problem may be a symptom of a deeper problem. Is there a wider context and associated issues?



Problem Identifier

A simple name for this problem

Name

3. Problem effects

What are the consequences of the problem?

In what ways can the problem affect a person life or the effectiveness of an organization?



4. Problem ownership

Who is affected by the problem?

Persons that can be directly or indirectly affected by the problem or can do something about it



5. Quantify the problem

What is the value of the problem?

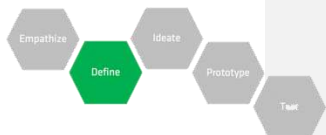
How to measure the damage created by the problem? How often it occurs? Does it worth the investment?



6. Helpful technologies

What technologies look promising?

List technologies that could be tested to provide a solution for the problem. Have some of them been tried?



Problem Definition Canvas

Identify and analyze your problem

1. Understand the problem

Where and when does this problem occur?

Explain the problem in simple words. Describe a situation that illustrates the problem.

Problem:
Spending too much on energy

Situation:
the monthly bills arrive



2. Causes for the problem

Why the problem exists?

The problem may be a symptom of a deeper problem. Is there a wider context and associated issues?

Cause:
Consuming too much energy

Root:
lack of real-time information



Problem Identifier

A simple name for this problem

Name

3. Problem effects

What are the consequences of the problem?

In what ways can the problem affect a person life or the effectiveness of an organization?

Family resources could be better used

Impact on the environment



4. Problem ownership

Who is affected by the problem?

Persons that can be directly or indirectly affected by the problem or can do something about it

Homeowners

Family



5. Quantify the problem

What is the value of the problem?

How to measure the damage created by the problem? How often it occurs? Does it worth the investment?

Monthly energy consumption

Current value: 110 euros



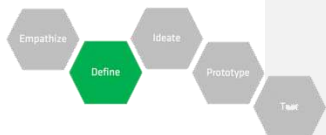
6. Helpful technologies

What technologies look promising?

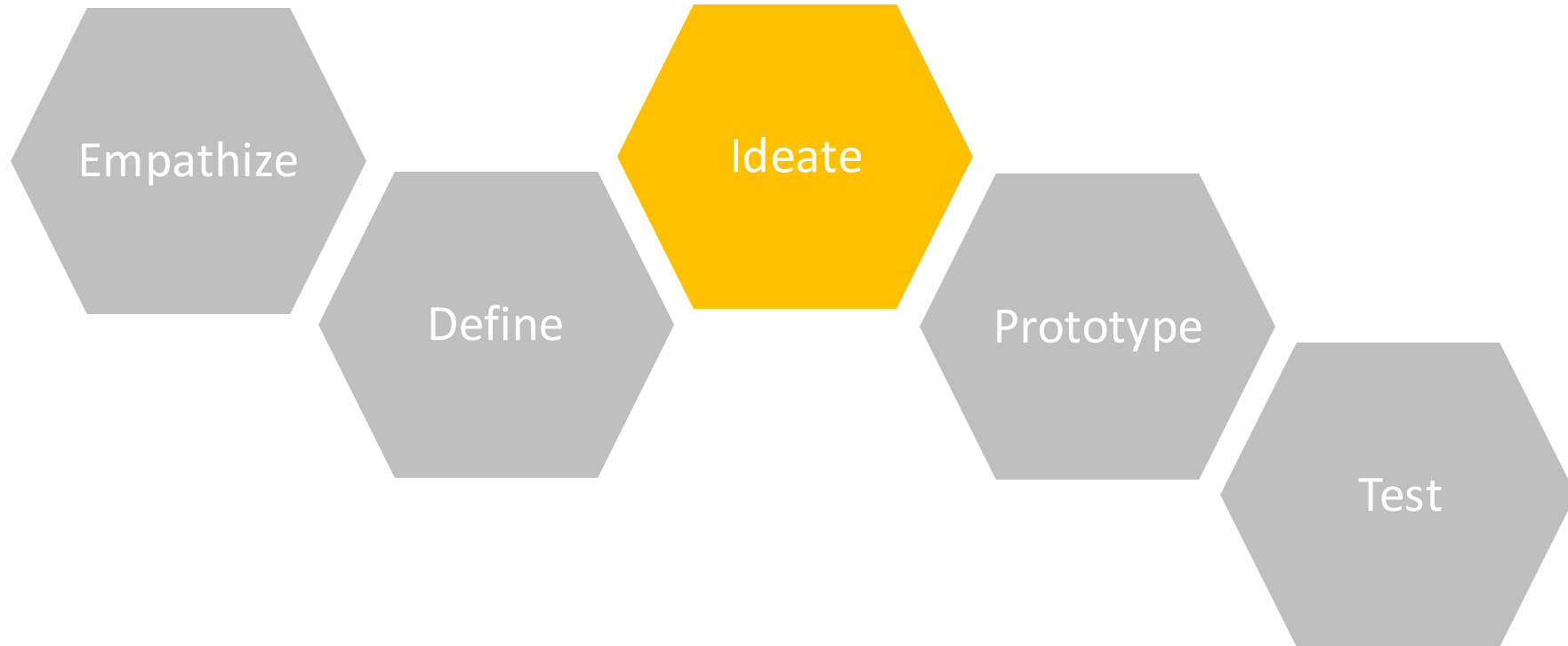
List technologies that could be tested to provide a solution for the problem. Have some of them been tried?

Internet of Things

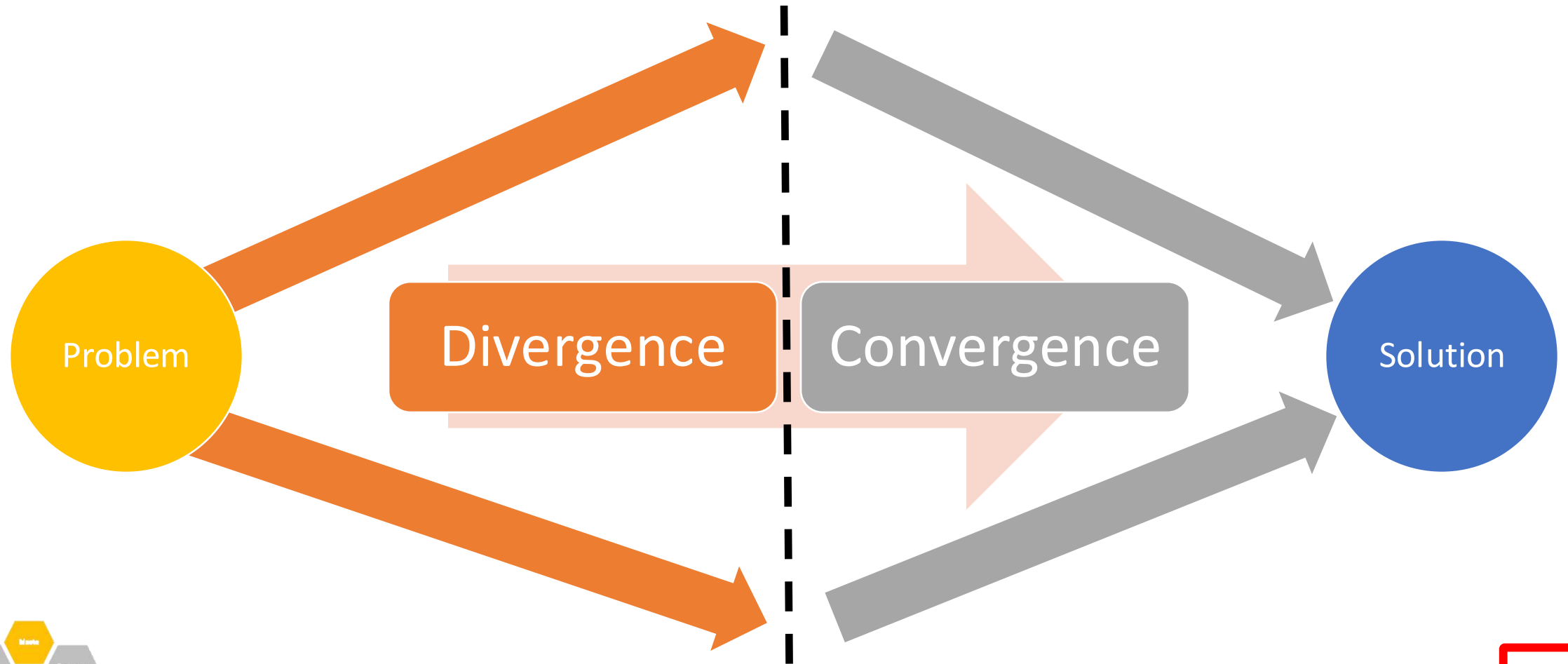
Data analytics

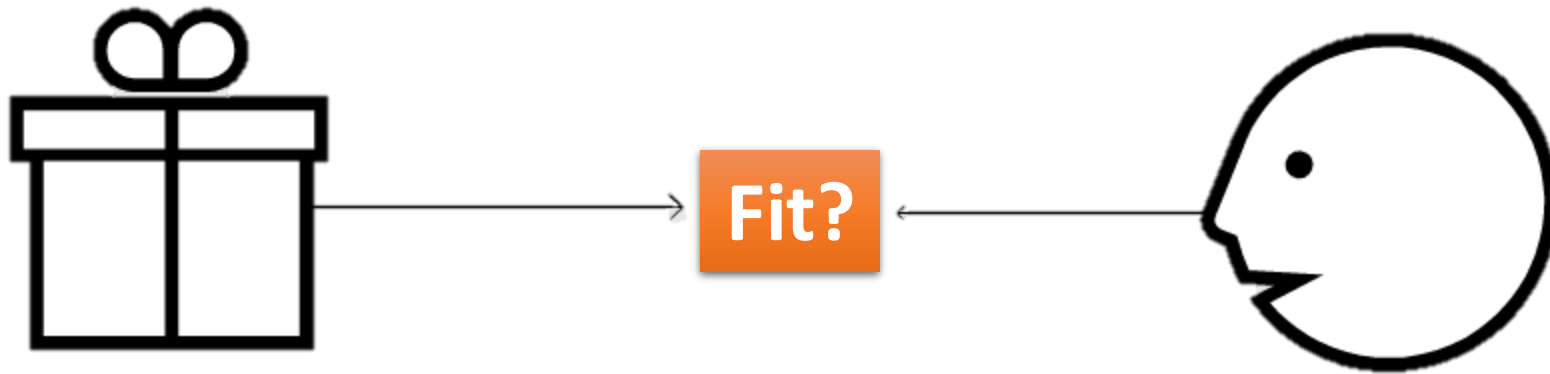


Ideate

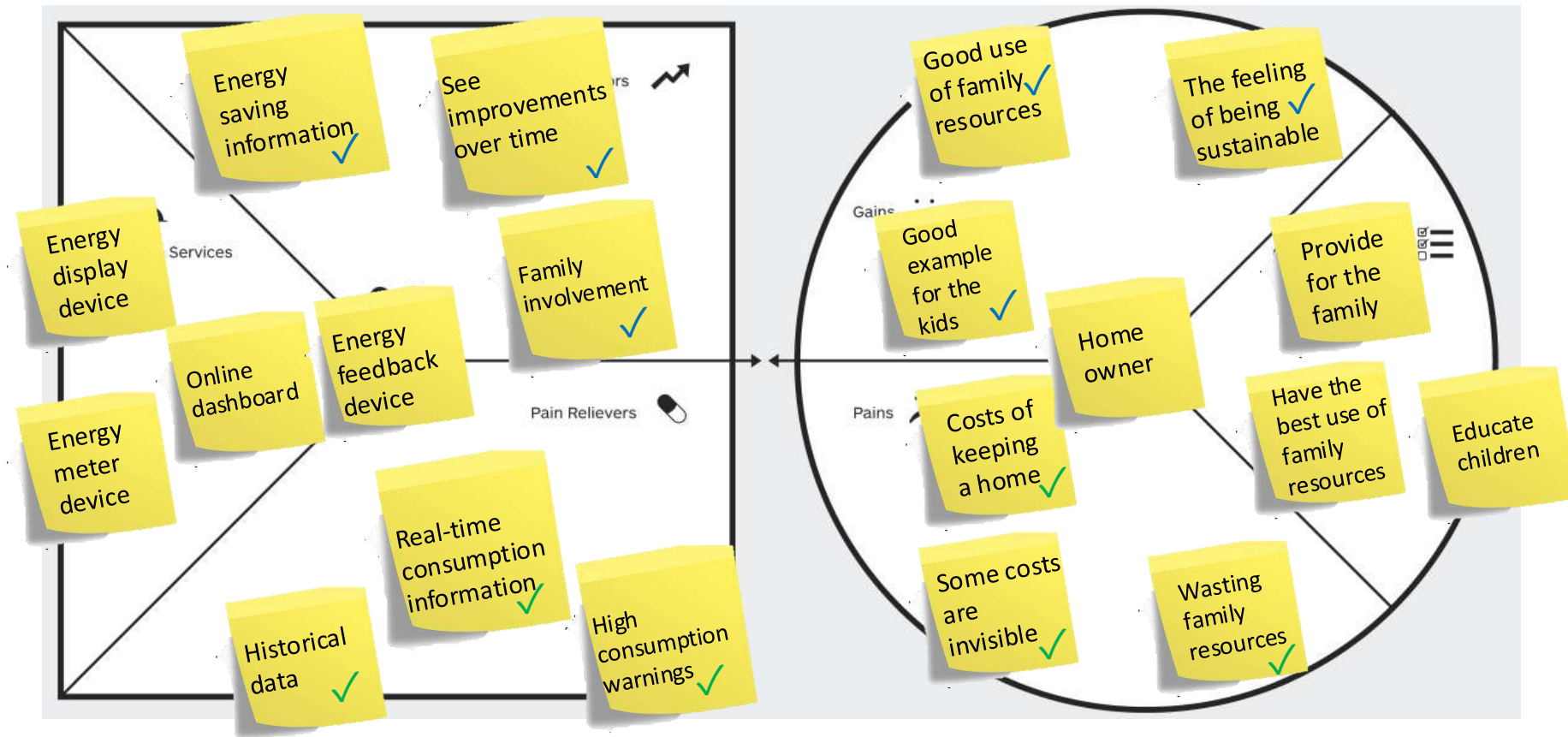


Design Process

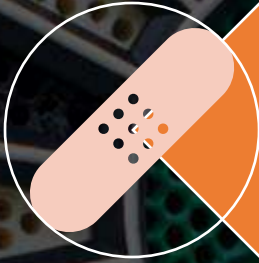




Value Proposition Canvas



Goals



Problem-solution fit



Product-market fit



Business model fit





On Paper

1. Problem-Solution Fit



In the Market

2. Product-Market Fit

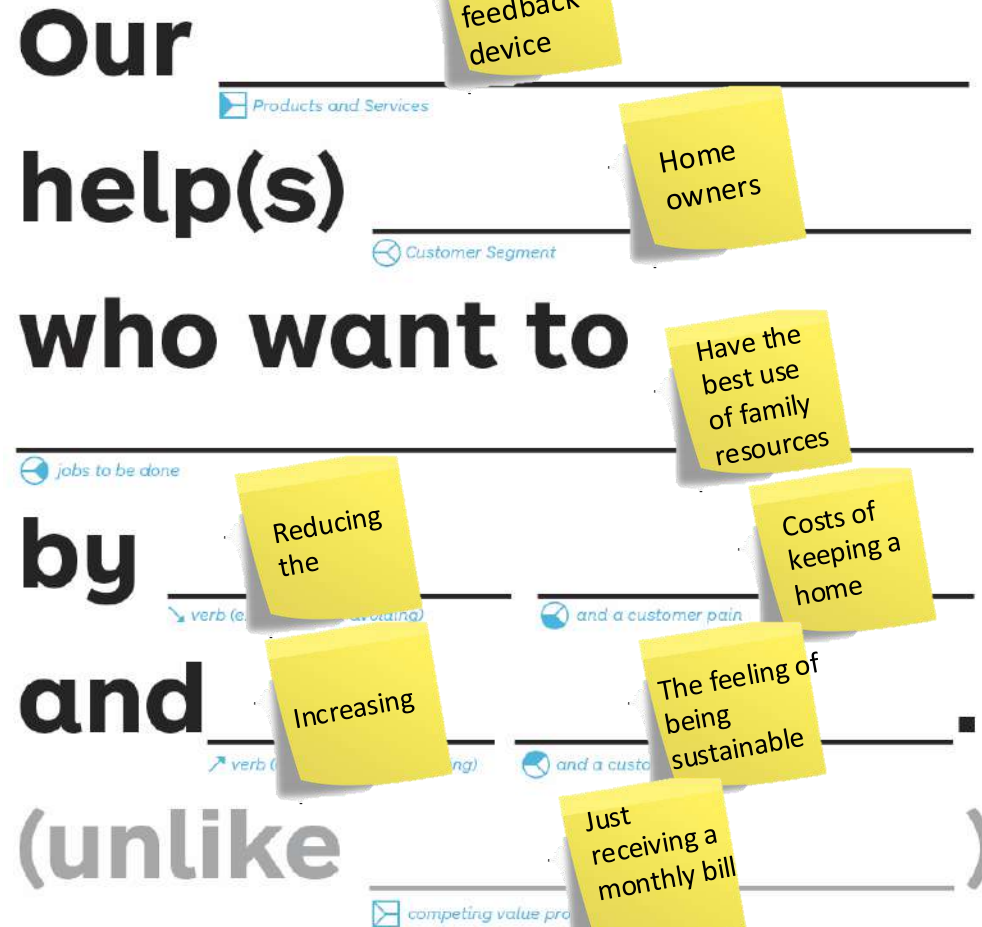


In the Bank

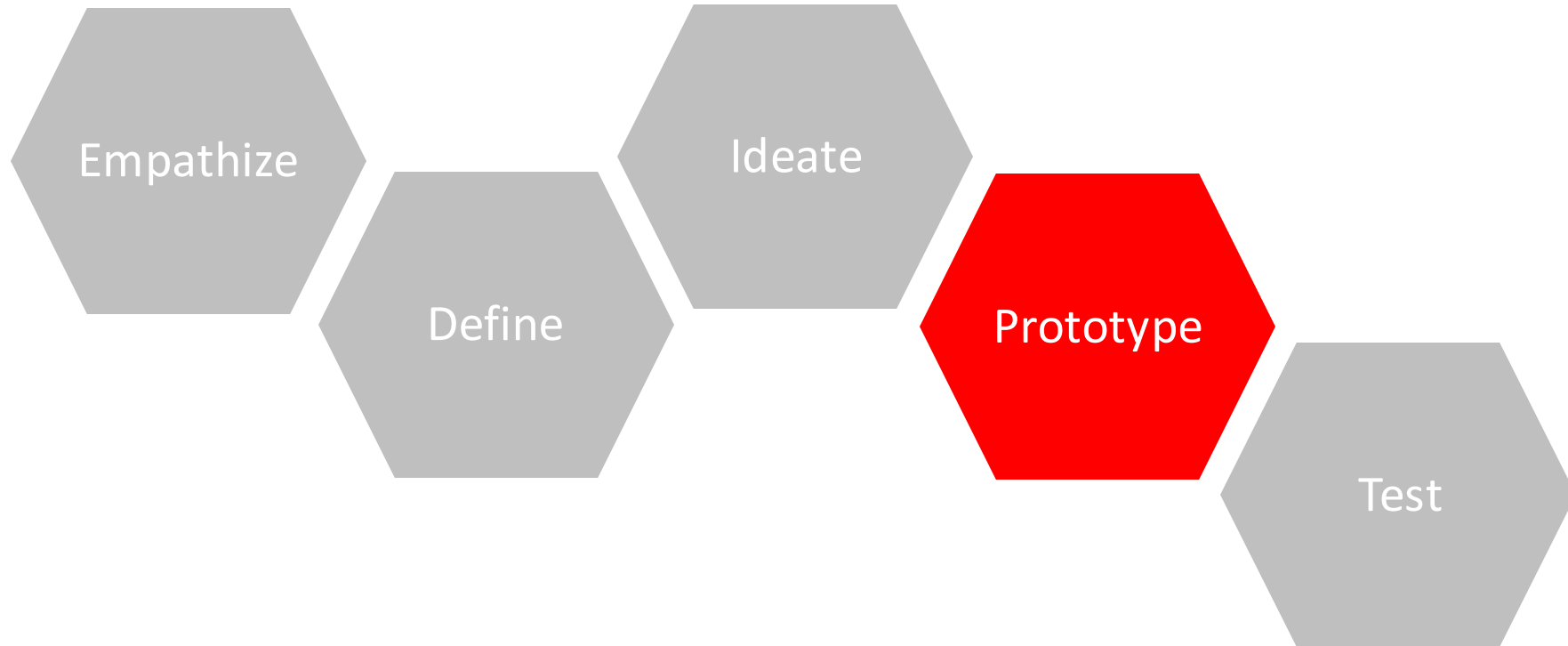
3. Business Model Fit



Ad-Lib



Prototype



Low Fidelity Prototypes

Bus Selection Bus Route

Ballycumin	Crescent	City	Chalders Rd.	UL	304	1 min
Rahwin	Crescent	Bus Station	Ehobogan	UL	304A	4 min
Ballycumin	Crescent	City	Chalders Rd.	UL	304	16 min

Anti bacterial
Hand Gel

WiFi icon, QR code icon, Leap logo, Ticket slot with "TICKETS CHANGE" label

STILL having unanswered questions?
CONTACT THE HOME OWNER

ABOUT YOUR STAY

Check-in Monday 17th September	Check-out Sunday 25th September
--------------------------------------	---------------------------------------

720 € 6 nights
off-season

Number of weeks (incl you)

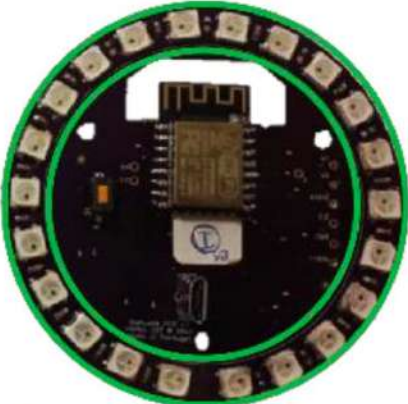
-	5	
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ABOUT YOU

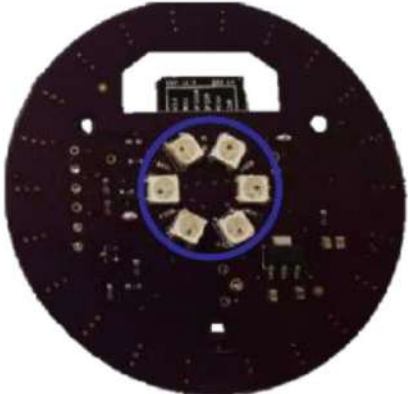
Name

Real-time Energy Consumption Feedback Device

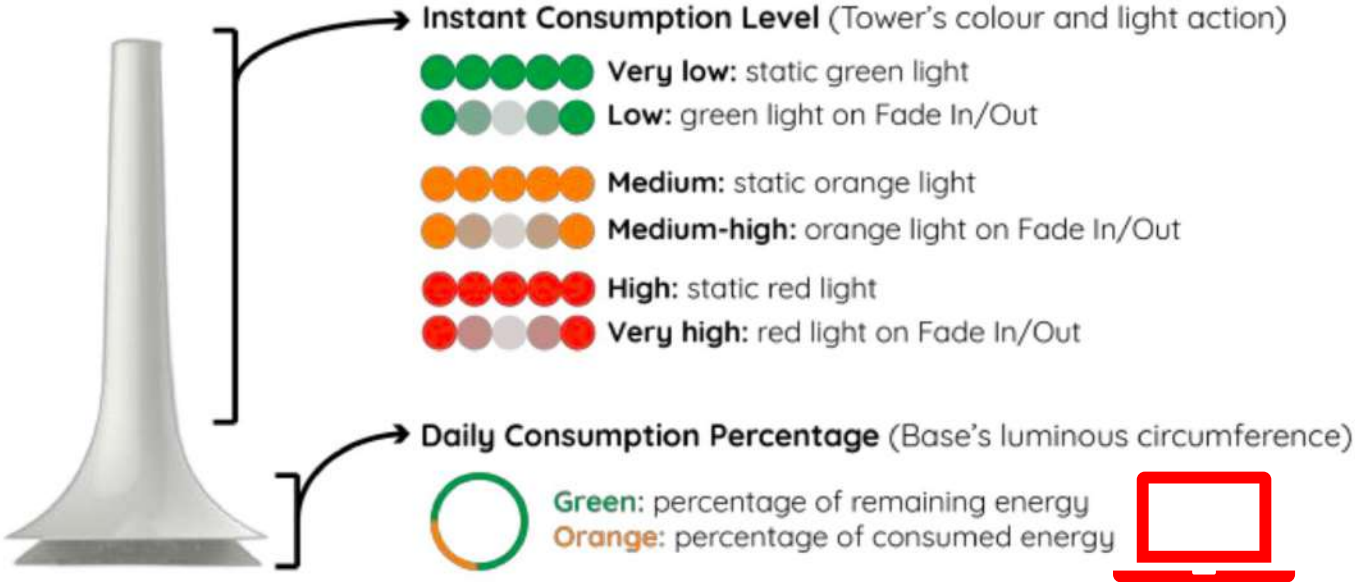
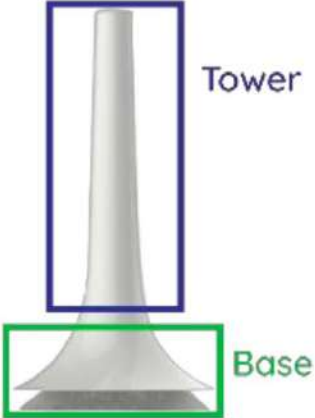
Gonçalo Andrade



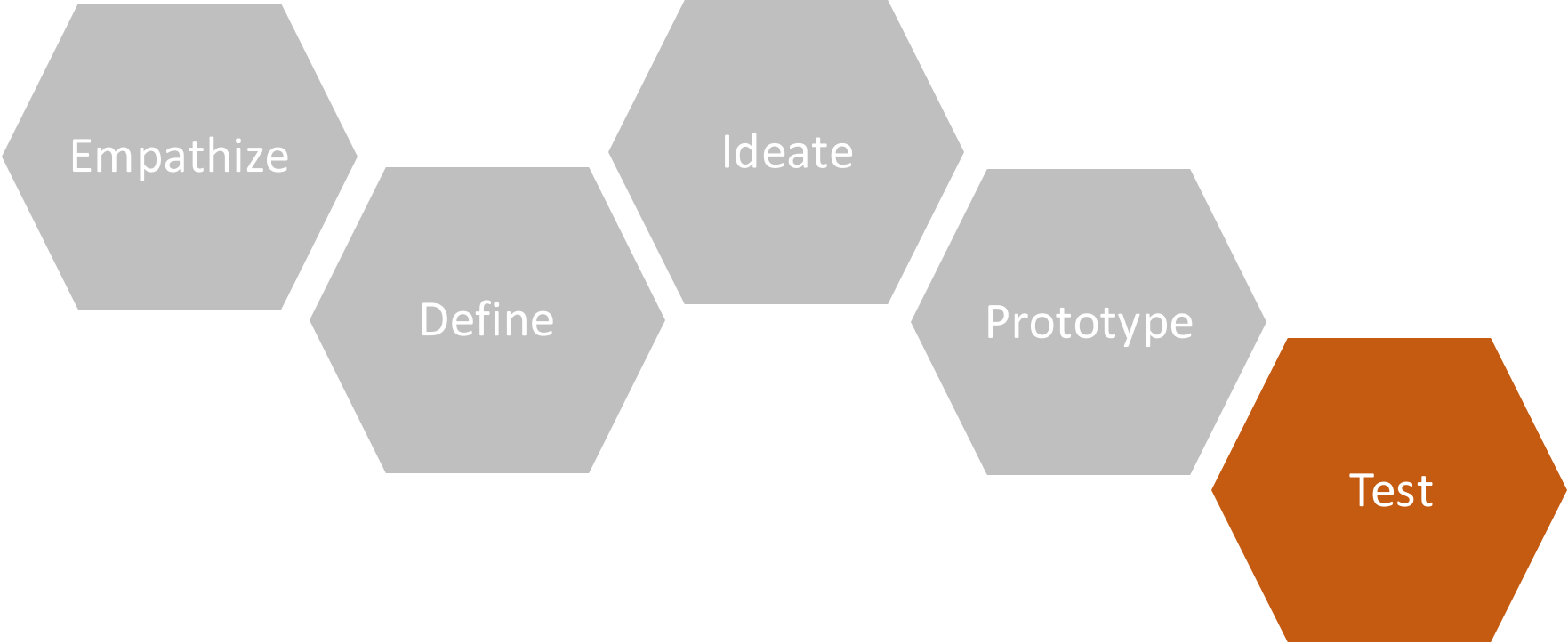
Base LEDs population



Tower LEDs population



Test



Real-time Energy Consumption Feedback

Gonçalo Andrade

Table 8.3: Before and after energy consumption – daily average – in kWh and percentage

	Treatment					Control
<i>i</i>	<i>Household 1</i>	<i>Household 2</i>	<i>Household 3</i>	<i>Household 4</i>	<i>Household 5</i>	<i>Household 6</i>
$\bar{W}_{before}(i)$	19.75	10.39	4.12	8.82	12.75	11.46
$\bar{W}_{after}(i)$	16.60	8.79	2.96	6.43	8.15	11.68
$\Delta\bar{W}_{\%}(i)$	-16%	-15%	-28%	-27%	-36%	+2%



A blue pen with a silver tip is positioned diagonally across the top left of the image. The background is a light blue document with a grid and a bar chart. The chart has several vertical bars of varying heights, with the tallest bar on the right side. The overall tone is professional and analytical.

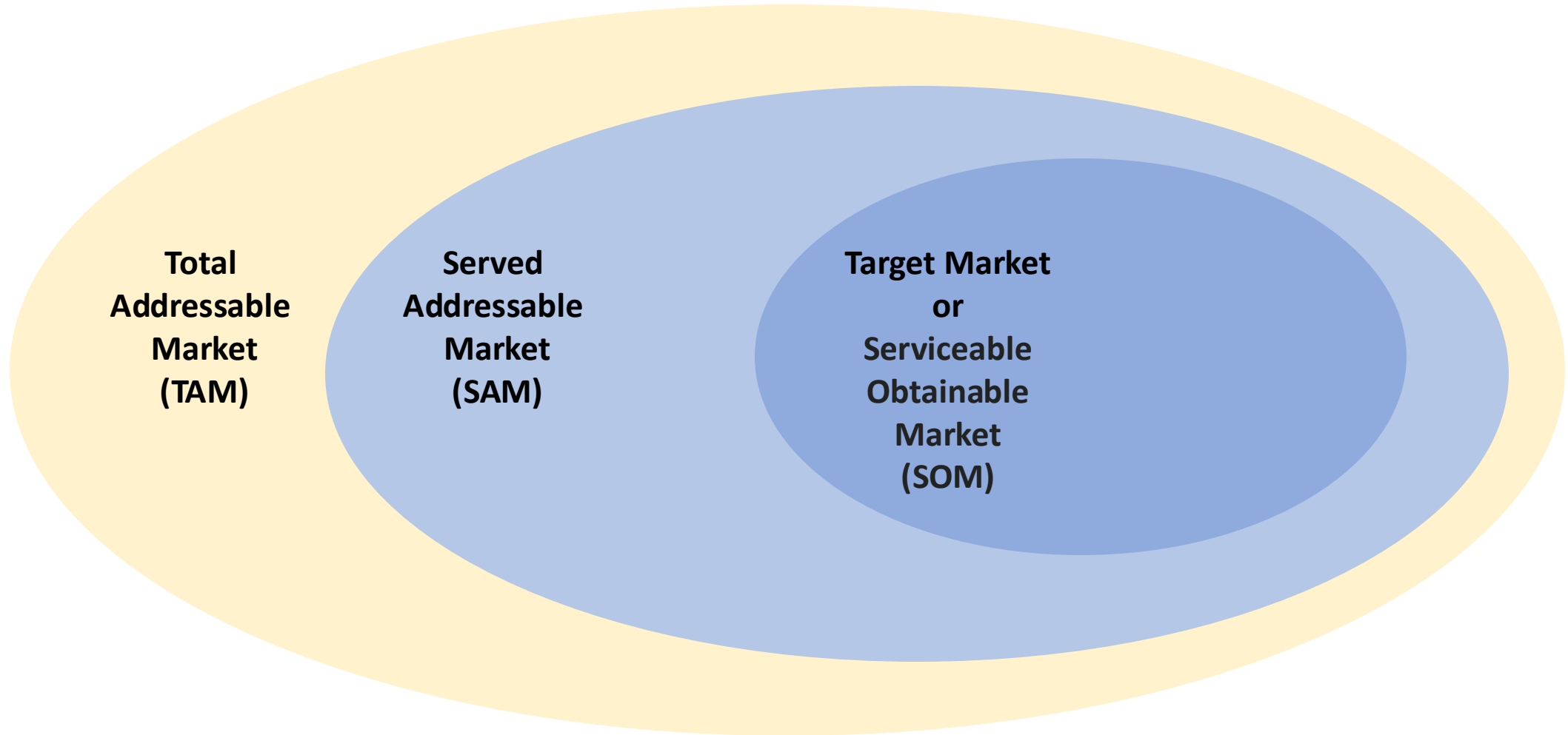
Market Opportunity Analysis

How big is this opportunity?



Estimating the market size

(Is this business worth doing ?)



What is the universe ?

What is reachable ?

What is my goal ?



What have you learned today?





Work for Next Class

- Watch Lesson 6 (Customer Segments) of Udacity's course on How to Build a Startup
- Update the Business Model Search Tool
- Update your Business Model Canvas
- Interview 10 stakeholders



Obrigado

