INNOVATION PROJECT

MIEI | 2025.04.23 | Class 8 | Rui Coutinho, Leonor Neto

TOPICS

1 Guidelines Final Report

2 Mission #4

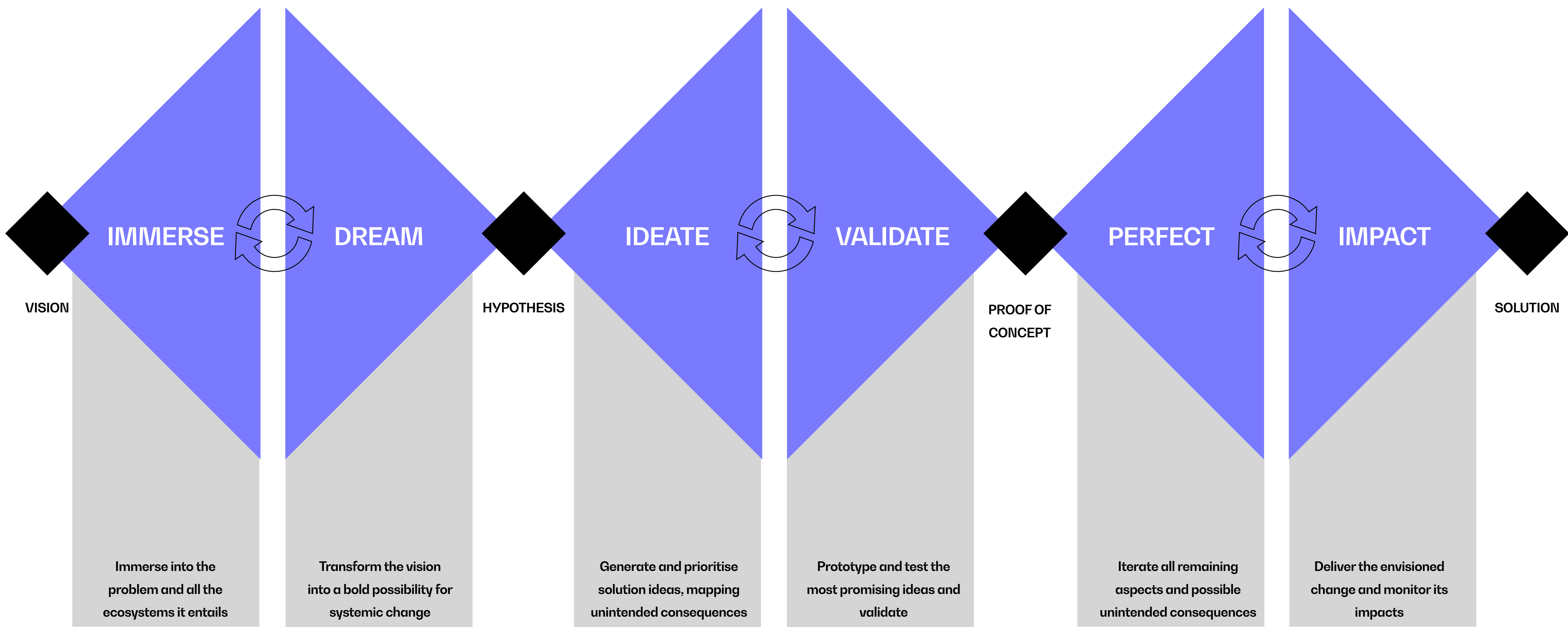3 Group Work

GUIDELINES FINAL REPORT

- We want you to <u>journal</u> the whole journey.

- Explain us the process, what you did in each step.

- We want to understand what decisions you made throughout the project, their rationale and the evidences/facts you used.

- We will not evaluate how good or how innovative is your solution. We want to evaluate how well you understood the innovation process and how you were able to think for yourselves, apply the principles, the concepts and the tools.

- Our opinion about the final solution is irrelevant and will not be part of the evaluation.

- You might not even reach a final solution and yet be very well evaluated (and vice-versa)

Innovation Project

NOVA SBE
iNNOVΛTION
ECOSYSTEM

MISSION #4

Life-Centred Innovation

IMMERSE ⟳ **DREAM**

IDEATE ⟳ **VALIDATE**

PERFECT ⟳ **IMPACT**

VISION

HYPOTHESIS

PROOF OF
CONCEPT

SOLUTION

Immerse into the
problem and all the
ecosystems it entails

Transform the vision
into a bold possibility for
systemic change

Generate and prioritise
solution ideas, mapping
unintended consequences

Prototype and test the
most promising ideas and
validate

Iterate all remaining
aspects and possible
unintended consequences

Deliver the envisioned
change and monitor its
impacts

Innovation Project

Life-Centred Innovation

VALIDATE

Prototype and test the most promising ideas and validate

Prototype

The process of prototyping bridges the gap between conceptual ideas and real, workable solutions. Prototyping allows you to answer questions and validate/invalidate assumptions leading to the iterative testing, learning, and refinement of components and complete solutions.

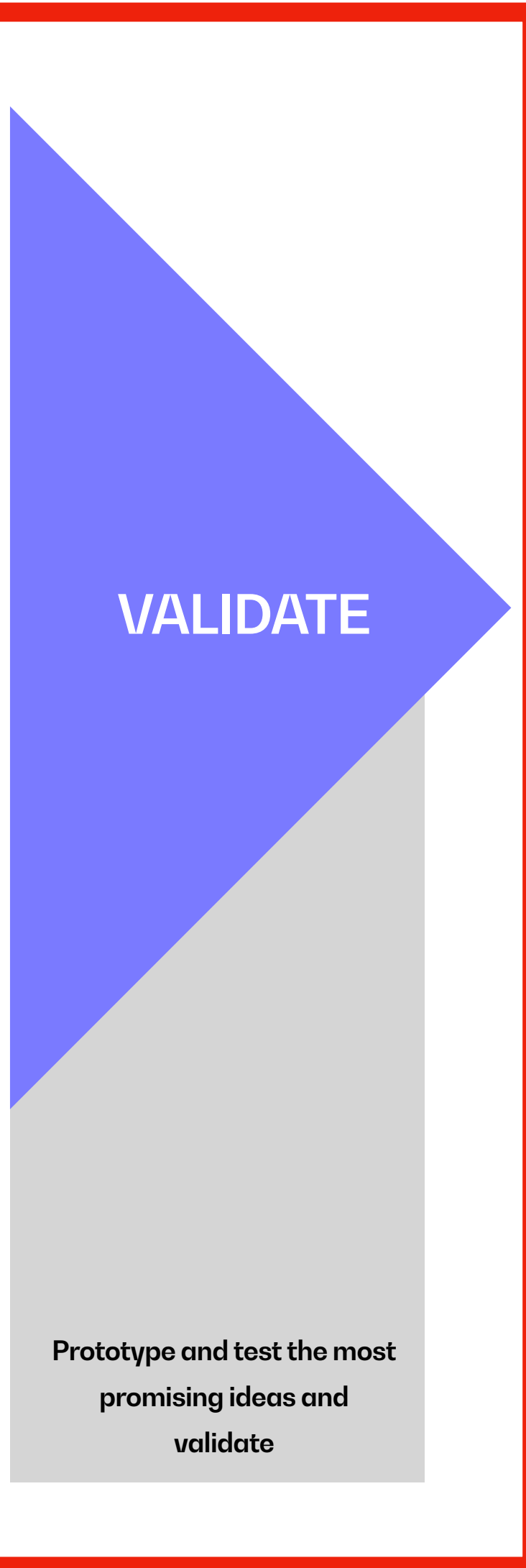**One of the key aspects of prototyping is that it generates empathy for prospective users.**

Choose your type of prototype and get your potential users/clients to interact with it. Observe behaviour, ask for feedback, collect insights.

Life-Centred Innovation
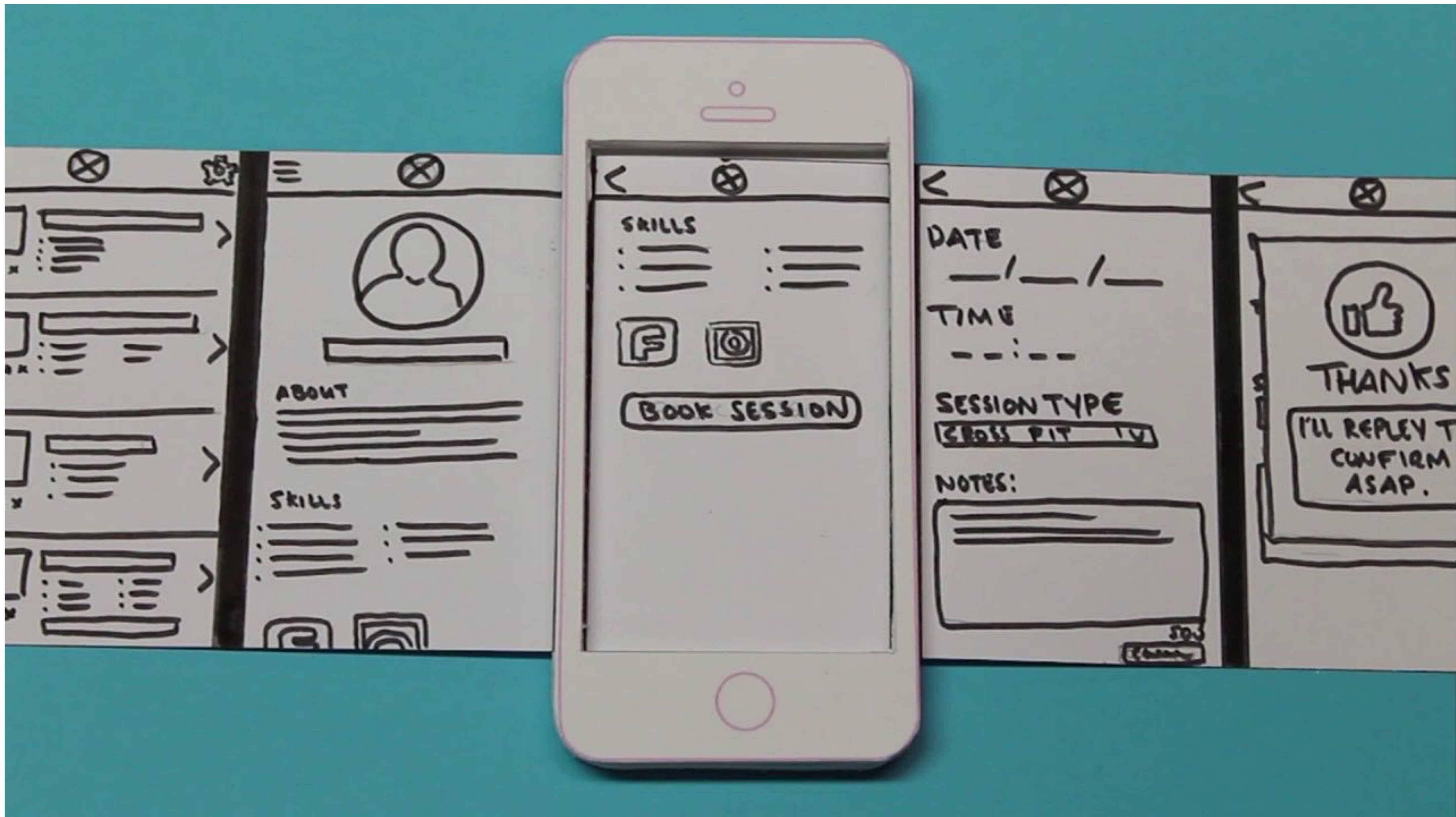
VALIDATE

Prototype and test the most promising ideas and validate
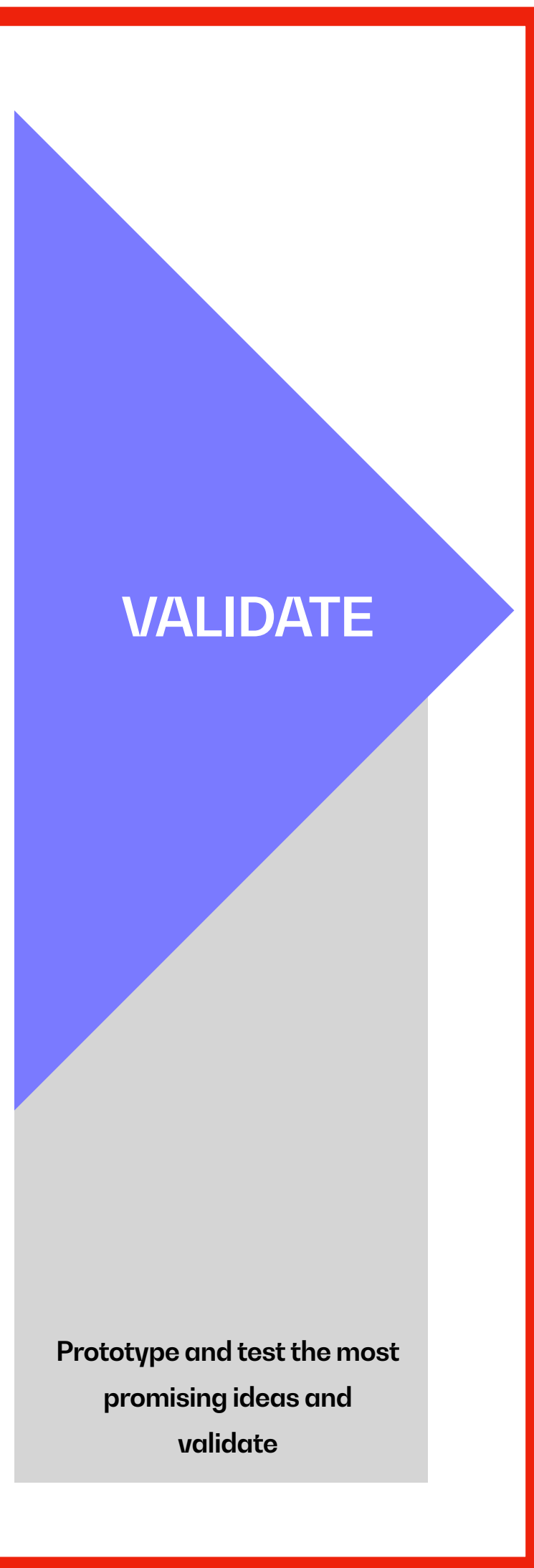
Types of Prototypes

- **Sketches and Diagrams**

- **Paper Interface**

- **Storyboards**

- **Role-Playing**

- **Physical Models**

- **Surveys (be careful)**

Life-Centred Visionary Innovation

VALIDATE

Prototype and test the most promising ideas and validate

Final Outcome

- **Validate assumptions**

- **Validate features**

- **Collect additional insights about the problem and/or solution**

- **Generate validation (and move forward), iteration or pivot**

What are the main assumptions that you need to test next? What are the main features that your experiments or prototype should have to test these assumptions? 📱

What's worth showing to and testing with possible users? 🧑‍💼

What makes explicit your idea's value proposition? 😬

✅ **In group, brainstorm what should be incorporated into your prototype or experiments.**

✅ **After that, freely vote on the main features.**

✅ **Pick the 3-6 best-voted features and move to the next step.**

3 votes per person

Tie-breaker decider vote ★

Ok, now you have an idea of the main features your prototype or experiment should showcase.

Next you need to define how this will be built into an actual prototype or experiment.

Remember, there are many different ways to prototype and experiment! It all depends on your idea and what you want to test with possible users.

✅ **Copy and paste the 3-6 best-voted features from above.**

✅ **Plan what and how you will test! Based on the main features identified, fill in the table: create one hypothesis for each feature you want to test and plan what's needed to successfully do so.**

3-6 best-voted features

#	We will test the feature...	We believe that...	To verify that, we will...	To test this, we need to...	We will test this with ___ possible users	We will target this test at...	The test will be successful if...	Kill, Pivot or Persevere
1								
2								
3								
4								
5								
6								

Our solution is a...

Time to get dirty! Time for you build your prototype or experiment!

| A Business Model | A Physical Object | A Service | A Digital Product |

Now that you have everything planed, it's time for you to build your prototype - to start testing your solution with potential users.

✅ **Before you start building your prototype or experiment, take some time to reflect on your solution. Is it a:**
1. Business Model
2. Physical solution
3. Digital Solution
4. Service

Discuss it with your mentor.
This will help you deciding on the best way to showcase your idea and its features and to test the hypothesis you want to validate.

✅ **Explore different tools and options before building your prototype or experiment.** What are the main advantages of each one?
Check some of the tools you can use to build your prototype.

✅ **Together with your mentor, decide what your prototype or experiment will be! Explore 1 or 2 possibilities and evaluate which suits your purpose better.**

✅ **Build the prototype or experiment to test your solution. Tell us what it is - and show it!**
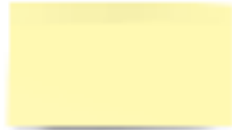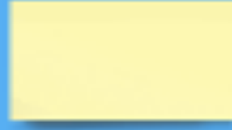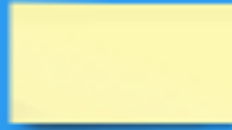
Types of prototype or experiment

You can prototype your solution with:
- Paper interface
- If it's a service, do a role-playing or make a demo video
- Sketches and Diagrams
- If your product is on a screen, try tools like Keynote or PowerPoint and InVision or Marvel
- If it's an object, modify an existing object, 3D print a prototype, or prototype the marketing
- If it's on the web, design a landing page with Wix, Instapage, or Unbounce
- AI Tools
- Legos

A good prototype or experiment is

- Quick
- Cheap
- Minimal
- Testable
- Measurable

Prototype/Experiment	Pros	Cons
Prototype/Experiment #1		

Paste your initial prototypes or experiment plans here!
Remember: it can be an image, a video, a link to an external tool... be creative!

Now that you have a first prototype or experiment, it is time to start testing it!

✅ Based on your planning, test your prototype or conduct your experiment with potential customers to validate the features you created.

Do different tests to validate your ideas and keep track of the results using the Learning Cards to your right.

Do as many tests as you need to test and validate your hypothesis.

✅Fine-tune your prototype or experiment. Based on the learnings from each cycle, make improvements and changes to it.

Prototype/Experiment #1 report

Learning Card   ↻ Strategyzer

Test Name | Deadline
Assigned to | Duration

STEP 1: HYPOTHESIS
We believed that

STEP 2: OBSERVATION
We observed

STEP 3: LEARNINGS AND INSIGHTS
From that we learned that

STEP 4: DECISIONS AND ACTIONS
Therefore we will

Copyright Strategyzer AG

Prototype/Experiment #2 report

Learning Card   ↻ Strategyzer

Test Name | Deadline
Assigned to | Duration

STEP 1: HYPOTHESIS
We believed that

STEP 2: OBSERVATION
We observed

STEP 3: LEARNINGS AND INSIGHTS
From that we learned that

STEP 4: DECISIONS AND ACTIONS
Therefore we will

Copyright Strategyzer AG

Prototype/Experiment #XX report

Learning Card   ↻ Strategyzer

Test Name | Deadline
Assigned to | Duration

STEP 1: HYPOTHESIS
We believed that

STEP 2: OBSERVATION
We observed

STEP 3: LEARNINGS AND INSIGHTS
From that we learned that

STEP 4: DECISIONS AND ACTIONS
Therefore we will

Copyright Strategyzer AG

An example

You have tested your prototype and conducted some experiments!

✅ **It is time for your final conclusions!**
Based on the tests done:
- Fill in the table to your right: identify all tested features, if your decision was to Kill, Pivot or Persevere, and main learnings.

✅ **Discuss and validate your learnings and conclusions with your mentor to prepare the final prototype.**

✅ **Based on your value proposition, and on the final version of your prototype, think about situations that can express and explain this.**

✅ **Create a storyboard for your prototype, in which you show how customers will use and interact with.**

You have now all you need to build your final prototype!

You experimented different tools and performed several validation tests.
It is time to build your final prototype.

✅ **Select the right prototype type, based on the experiments you did.**
Tell us what your final prototype is and why.

✅ **What are the main features of your prototype.**

✅ **Identify your prototype solution main goals.**

✅ **Refine your prototype based on testing and feedback and finalize it.**

Prototype/Experiment #	Features tested (list the features tested in each cycle)	Kill, Pivot or Persevere (list and identify the decision for each feature)	Main Learnings
1			
2			
3			

Key Resources

Post here the storyboard for your solution (a visual representation of your solution)

Value proposition

Show us your final Protoype! (photo, video, external link, etc...)

Channels

LET ME TELL YOU A STORY

turning waste into furniture...

#future directions #IKEA Industry #fungi-based material
#turning waste #into resources #into furniture #ME310

FUNGI   WOOD WASTE   NEW BIOMATERIAL

MUSHROOM   FROM   TO BE USED IN
GANODERMA   THE IKEA   BOARD-ON-FRAME
LUCIDUM   FACTORIES   STRUCTURE

expanding the låsa advantage...

#future directions #IKEA Industry #one-step assembly
#mechanism #small scale #low price #great value #ME310

INSERT   TWIST   LOCK

Innovation Project

Cities are going pedestrian.

When cars can no longer access the center of cities, how can we move people from A to B?

When cars can no longer access the center of cities, how can we move ~~people~~ from A to B?

When cars can no longer access the center of cities, how can we move **stuff** from A to B?

CARGO

ONE CART. THREE CONFIGURATIONS

CarGo is a delivery vehicle built with the user in mind; three cart configurations allow the user to use the cart according to his or her preference.

INTUITIVE DRIVING
CarGo features an ergonomic handle with haptic direction control, for easy and intuitive maneuvering with one hand or two.

MOTORIZED
CarGo allows for stress-free, reduced effort transportation of heavy loads.

FORD TRANSIT EXTENSION
Storage is a minimal effort endeavor for the user; CarGo slides seamlessly into the back of the Ford Transit.

Modern Delivery for the Busy City

In the future, crowded cities will become even more dense as a projected 67% of the worlds population move to urban areas. To make space for this surge in population density, cities are eliminating vehicles from entering the city core. While this restriction reduces the feasibility of current commercial delivery methods, it opens the market for a new delivery device. Meet CarGo. More packages, delivered faster, with less effort.

With CarGo, distribution of goods is simply more efficient.

CarGo empowers workers to "Go Further"!

INTUITIVE INTERFACE. SEAMLESS INTEGRATION INTO FORD TRANSIT.
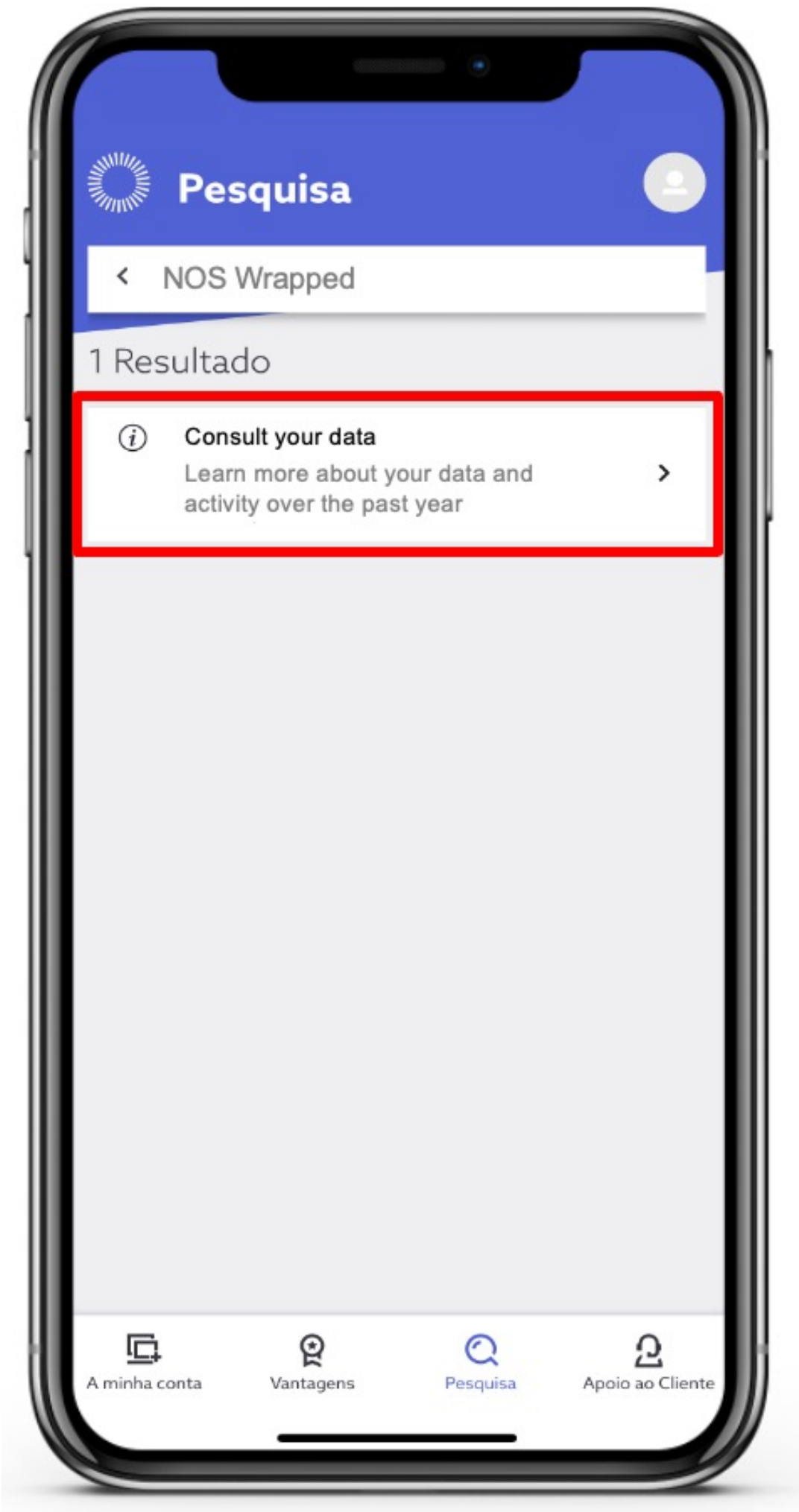LOW PROFILE STORAGE. VERSATILE CONFIGURATIONS. REDUCED LOADING EFFORT.

THE TEAM Griffin Price Katarina Góis Michelle Chernick Moisés Neves Pedro Pereira Kunal Shah Wut Yee Oo
LIAISONS Sudipto Aich Jamel Seagraves Chih-Wei Tang   COACHES Adrit Lath
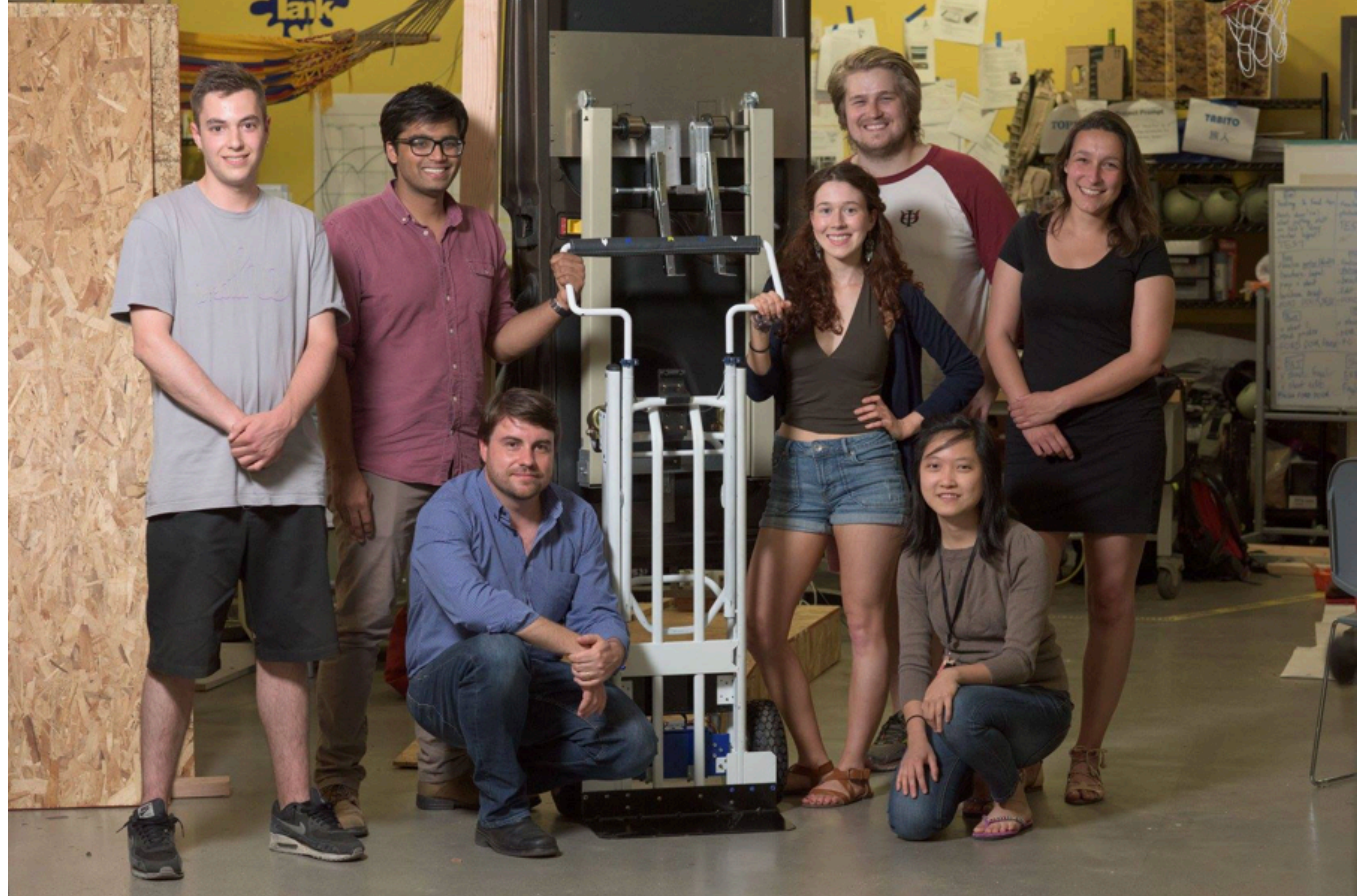
PROTOTYPE

CompalCulator

S+C Database

- Flavor Profiles of Ingredients
- Customer Feedback
- Sourcing Data
- Taste Profile
- Compatibility
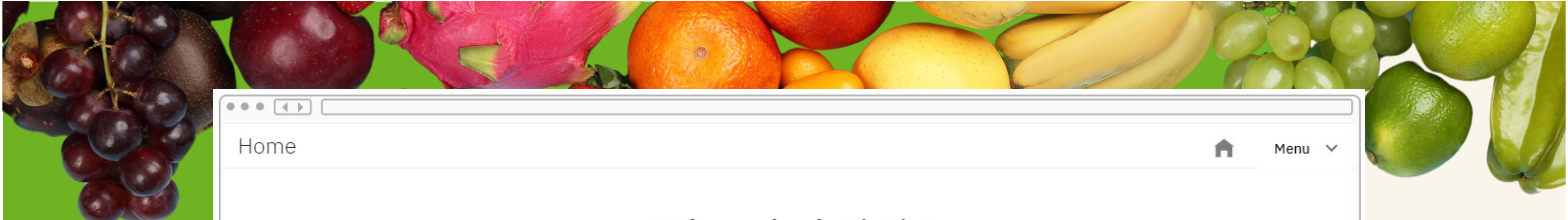- Costs & Substitutes

Input

ENGINE

Input

External Database
- Market Trends
- Growth Rates
- Regional Data

Output

Output
AI tool with customized flavor prediction and access to historical data

Welcome back, SipSip!

Home is where the heart is, and in our case, it's also where the blender hums, concocting delightful beverages that make every sip feel like a warm welcome! 🏆 🏠

Your Profile

Name: SipSip
Industry: Beverage
Specialty: Artisanal Teas and Fruit-Infused Drinks
Target Market: Health-conscious young adults and millennials
Geographical Focus: Urban areas in North America and Europe

Edit Data •

Since your last visit, our mixologists have been busy as bees:

+1.3 K
New Consumers
Embrace the diversity of taste with each new consumer joining our flavor journey.

+14
New Flavor Trends
Stay ahead with our real-time count of emerging and exciting flavor trends.

+4
New personalized Flavors
Celebrate each unique, user-created flavor concoction added to our vibrant palette.

+5
New Locations identified
Witness our growth with every new location that welcomes our world of flavors.

Demographic Preferences by Location

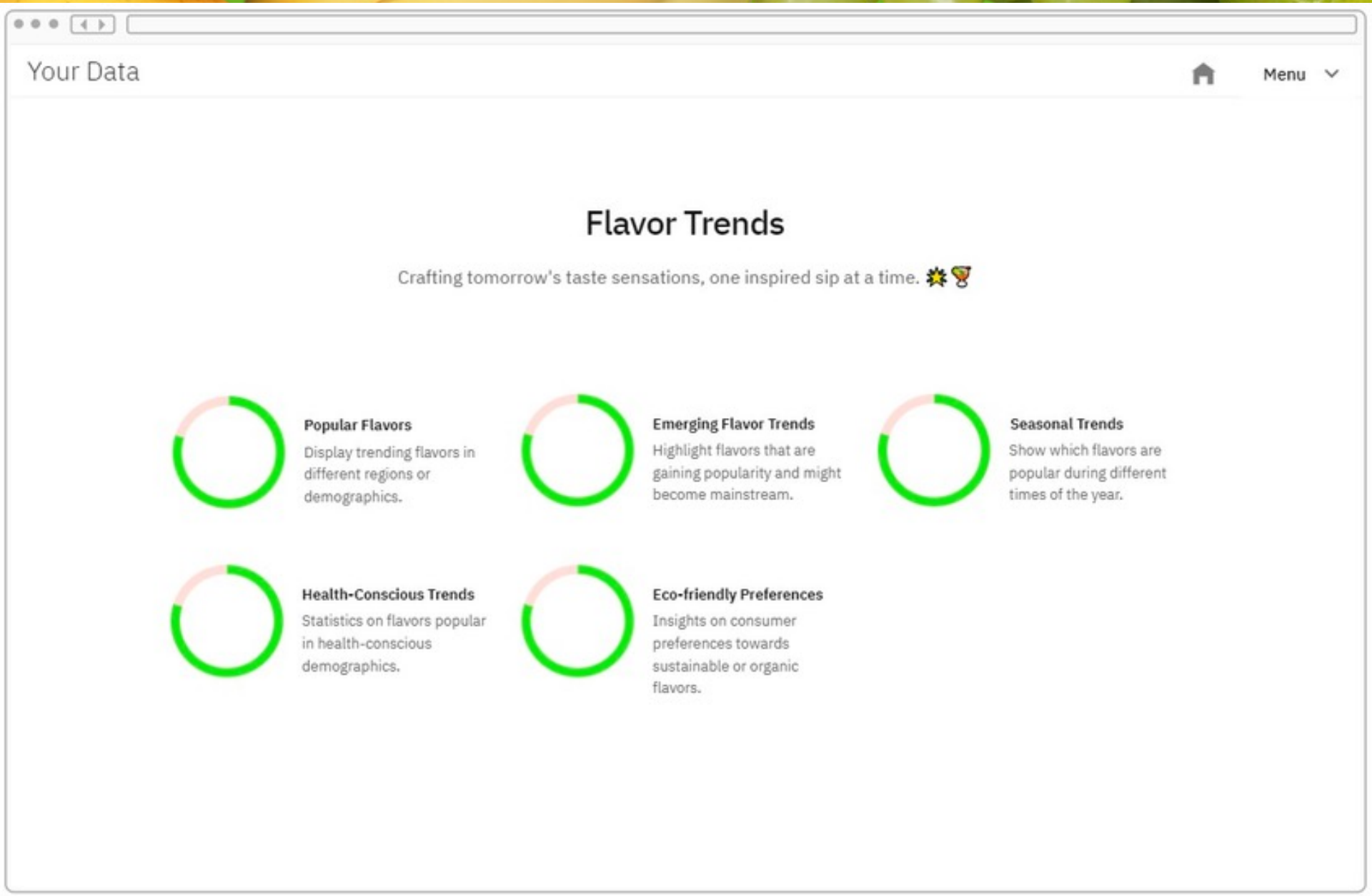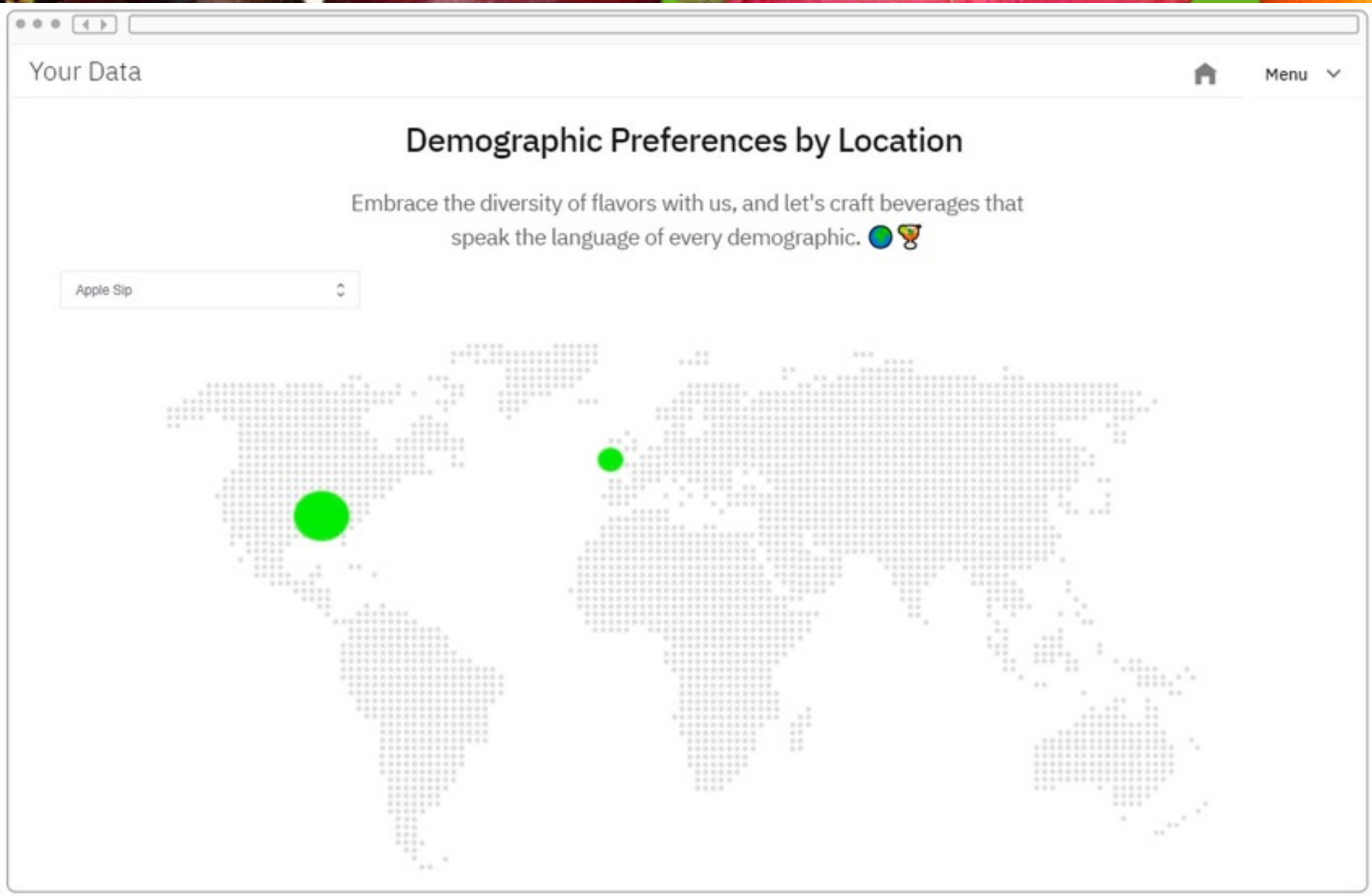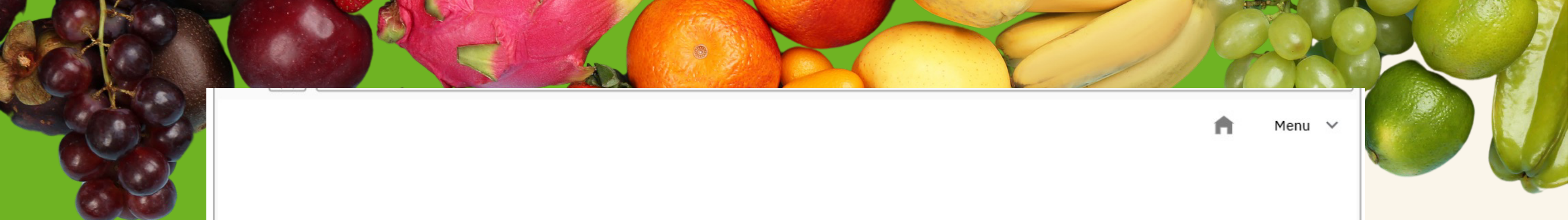Embrace the diversity of flavors with us, and let's craft beverages that speak the language of every demographic. 🌐🏆

Apple Sip

Flavor Trends

Crafting tomorrow's taste sensations, one inspired sip at a time. 💥🏆

Popular Flavors
Display trending flavors in different regions or demographics.

Emerging Flavor Trends
Highlight flavors that are gaining popularity and might become mainstream.

Seasonal Trends
Show which flavors are popular during different times of the year.

Health-Conscious Trends
Statistics on flavors popular in health-conscious demographics.

Eco-friendly Preferences
Insights on consumer preferences towards sustainable or organic flavors.

Consumer Data

Let's turn data into delightful experiences, one sip at a time. 💥🏆

Demographic Preferences
Break down flavor preferences by age, gender, location, etc.

Purchase Patterns
Data on how certain flavors perform in terms of sales.

Market Share Analysis:
How flavors compare in the market against competitors.

Consumer Feedback Analysis
Insights from consumer reviews and ratings on various flavors.

Regulatory Compliance and Safety

Ensuring every flavor meets the highest standards, our focus on regulatory compliance and safety brews trust and quality into every sip. 🥤🏆

Alert
Updates on regulatory changes that might affect flavor usage.

Learn More 🔴

CompalCulator AI - Your Precise Flavor Architect

Let's create not just beverages, but experiences that linger on the tongue and in the memory. 🎨🏆

Option 1	Option 2	Option 3

Herbal Wellness Blend:

A caffeine-free herbal tea blend incorporating stress-relieving ingredients like lavender and chamomile, catering to the wellness trend.

Ingredients	Costs	Nutritional Information	Taste Profile	Market Value
Primary Ingredients: Lavender, Chamomile **Supporting Flavors:** Lemon balm, Mint, Rose petals **Sweeteners (Optional):** Stevia or Honey (for natural sweetness) **Base:** Rooibos or Green Tea (Caffeine-free options)	**Production Cost per Unit:** Estimated $1.50 (includes sourcing of organic herbs, sustainable packaging)**Retail Price per Unit:** Suggested $3.99 (competitive pricing considering the organic and wellness market)	**Calories:** 0 kcal (without sweeteners) **Sugar:** 0 g (without added sweeteners) **Caffeine:** 0 mg **Other:** Rich in antioxidants, naturally soothing and calming properties	**Flavor:** A delicate, floral taste with notes of lavender and chamomile, balanced by the freshness of mint and a subtle hint of citrus from lemon balm. **Aroma:** Calming and aromatic, **Aftertaste:** Smooth and slightly sweet, leaving a refreshing and soothing sensation.	**Target Demographic:** Health-conscious consumers, particularly those interested in stress relief, relaxation, and wellness. **Sales Forecast:** High potential in urban markets and online wellness communities. Expected to appeal to a wide range of consumers.

CompalCulator

CompalCulator AI - Your Flavor Artist

Your drink, your rules. Unleash your inner mixologist and paint your palate with flavors that tell your story. 🎨🍹🌈

Step 1	Step 2	Step 3	Step 4	Finish!
Choose Your Base	**Pick Your Primary Flavors**	**Add Supporting Notes**	**Sweeten to Taste:**	**Personalize Your Aroma & Color**
Sparkling Water ⌄		Mint ⌄	Honey ⌄	Natural Colorants ⌄

Strawberry
Vanilla
Dragon Fruit
Elderflower

Mix →

Ingredients

Primary Fruits: Mango, Passion Fruit
Supporting Flavors: Pineapple, Coconut water, Lime juice
Natural Sweeteners: A touch of honey or cane sugar (optional)
Base: Sparkling water or still water (as preferred)

Costs

Production Cost per Unit: Estimated $1.75 (includes sourcing exotic fruits, natural sweeteners, and environmentally friendly packaging)
Retail Price per Unit: Suggested $3.99 (offering a competitive price for a premium exotic beverage)

Nutritional Information

Calories: 60 kcal (with minimal natural sweeteners)
Sugar: 14 g (natural sugars from fruits and added sweeteners)
Vitamin C: 25% of Daily Value
Hydration: Enhanced with electrolytes from coconut water

Taste Profile

Flavor: A vibrant medley, with the sweetness of mango and passion fruit at the forefront, balanced by the tang of pineapple and the refreshing hint of lime.
Aroma: Exotic and enticing
Aftertaste: Light and refreshing with a subtly sweet and tangy finish

Market Value

Target Demographic: Young adults, fitness enthusiasts, and consumers seeking exotic, refreshing drinks.
Sales Forecast: High potential in both specialty health food stores and general supermarkets. Likely to be popular in summer and in regions with warmer climates.

GROUP WORK

/thank you.

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ECOSYSTEM