



The first step is you.







to look beyond recycl

bottles were put in bins destined for the local incinerator. Consumer credit has become a way of life for many of us. And companies large and small have battled to keep pace by churning out ever more goods

lukewarm promises, the charter is a perfect example of the fake leadership that has done almost nothing to stem the flow of detritus into our most precious natural ecosystems. From Bali to Blackpool

FOLLOW Sutherland on Twitter @Sutherland

The end of life on Earth

BE INSPIRED

CODE RED FOR HUMANITY

EXTREME WEATHER DOWN TO GLOBAL WARMING, SAYS DOOMSDAY REPORT FROM UN

WORLD WILL HEAT UP AT LEAST 1.5C BY 2040... A DECADE EARLIER THAN WAS FORECAST

by AIDAN RADNEDGE

School's plea for recycling help

Pupils from William Penn Primary School in Coolham

A combined £500 in charity prize donations will be

The contest, which will run until Wednesday April



POLLUTION

Call to end single-use plastic pro

We have an opportunity in Plastic Free July to reflect on our environment. The



CITY HEAVES UNDER PLASTIC BURDEN

FROM A BAN ON USE OF PLASTIC BAGS BELOW 50 MICRONS TO RESTRICTIONS ON BURNING OF PLASTIC IN OPEN, THE GOVT HAS MADE SEVERAL ATTEMPTS TO TACKLE THE ISSUE. BUT ON GROUND IT HAS STRUGGLED WITH IMPLEMENTATION

Pics: Ramoorthy P

ENFORCEMENT

₹50,000 fine for mass

of plastic

fine for

ires

REEN



er in Durban. The problem of plastic pollution

a few minutes. It is this convenience that companies have capitalised on, and which they will cause consumers to be reprimanded for: their apparent "bad behaviour" of being coerced into a pervasive, inescapable consumer culture of single-use. It is worth reminding ourselves

8,000b microbeads flow into water bodies a yr

As Bangladesh joined the world in observing Earth Day on Sunday, experts sought measures to eliminate single-use plastics along with global regulation for the disposal of

7,000b get in Dhaka

1,000b in Ctg city

200b in Sylhet

The study titled 'Microbeads Pollution Scenario in Bangladesh' says every month around 8,000 billion microbeads flow into water bodies in and around three major cities - Dhaka

Plastic threat on the rise

World body report estimates that planet could be swamped with 12

HMW STATEMENT #1

How might we get people to recycle more?

Recycling is an afterthought

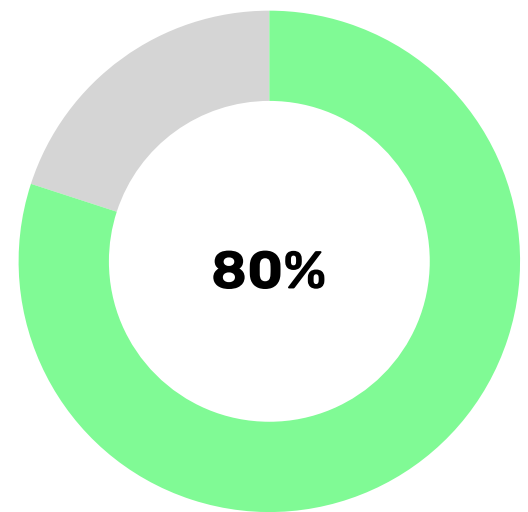
APP DESCRIPTION	Pre Purchase Affirmation	Post Purchase Action / Notification	Recycling knowledge Improvement	Incentive Driven Recycling	Recycling Site Information	Carbon Footprint Tracking / Suggestion
 <p>Scrapp's goal is to increase recycling knowledge by scanning the products' barcode that will educate the consumer about the products recyclability. The app allows the user to keep a history of all the items successfully scanned. The app has 3 categories, to recycle, compost and trash. Personalized activity insights coming soon. Point of contact with user is post purchase/usage of product.</p>	✗	✓	✓	✗	✓	✗
 <p>With Bower, you get rewarded when you recycle. Scan the barcode on your packaging, go and recycle it at an approved recycling station and get the reward directly in your phone! Bower is a world-unique app for getting rewarded for recycling all kinds of packaging with your mobile phone at regular recycling stations. Plastic bags, milk cartons, take-away mugs – you name it.</p>	✗	✓	✓	✓	✓	✗
 <p>Joro aims to take care of your emissions and take care of the planet. With joro, track, reduce, and offset the emissions behind everything you buy. The goal is to achieve net zero emission and more. Joro links your credit card to document your purchases and through that, educates users on the impact their purchases have.</p>	✗	✓	✗	✓	✗	✓
 <p>Cycle Technology is a mobile application that provides users with financial rewards for recycling via a beverage container recycling platform located mostly in stadiums, universities, and event-locales. It gamifies sustainability to encourage user engagement, and allows users to direct their funds to sustainable development projects.</p>	✗	✓	✗	✓	✗	✗
 <p>RTS Recyclebank partners with cities and brands to reward residents for helping to make their communities cleaner, greener places. Members whose city or waste hauler have partnered with them earn points for recycling, earn points online and on the app for learning how to lead a more sustainable life and turn points into local deals, donations or exclusive savings on sustainably made goods.</p>	✗	✓	✓	✓	✓	✓
 <p>Gamification app that invites user to track recycle virtually to that has been conducted in real life. The onus is for the user to repeat behavior in both realms. In this game, you can raise an EcoCritic, a mysterious creature that thrives when the planet is healthy. Your EcoCritic grows when you recycle, compost, or reuse items in the real world. By taking care of the planet, you can raise your EcoCritic from a seedling into its beautiful final form!</p>	✗	✗	✓	✓	✗	✓

FINDINGS

Recycling knowledge is lacking

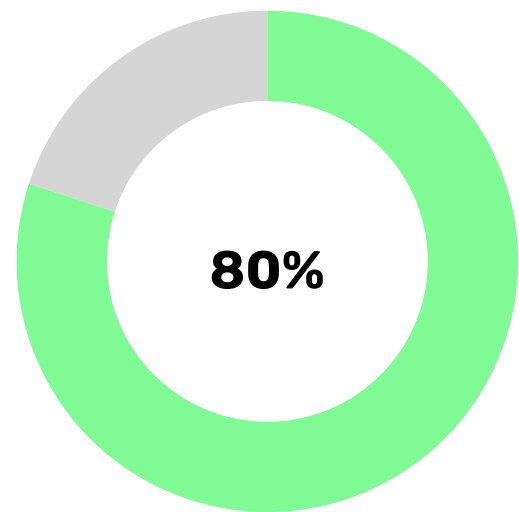


DECISION TO BUY IMPACTED



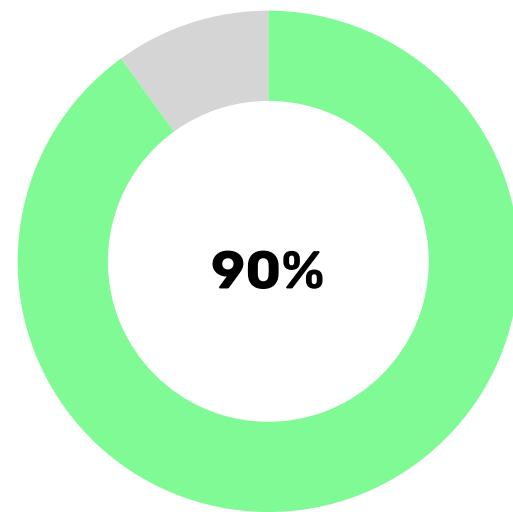
Would buy if they knew item is recyclable upfront

PRIOR KNOWLEDGE TO BUYING



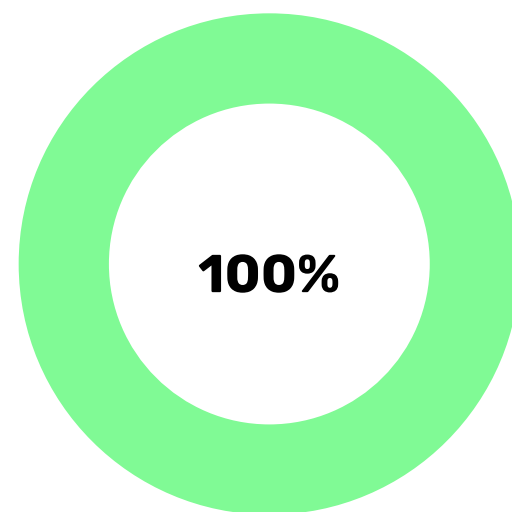
Does not know if item is recyclable prior to purchasing

RECYCLE AVAILABILITY



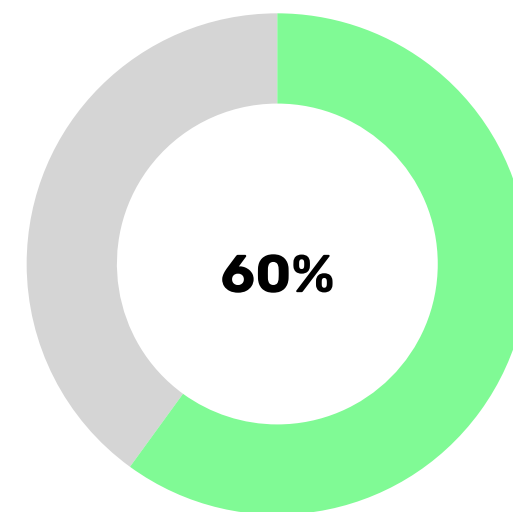
Recycling is readily available where they live

LACK OF RECYCLING KNOWLEDGE



Do not know of all things recyclable

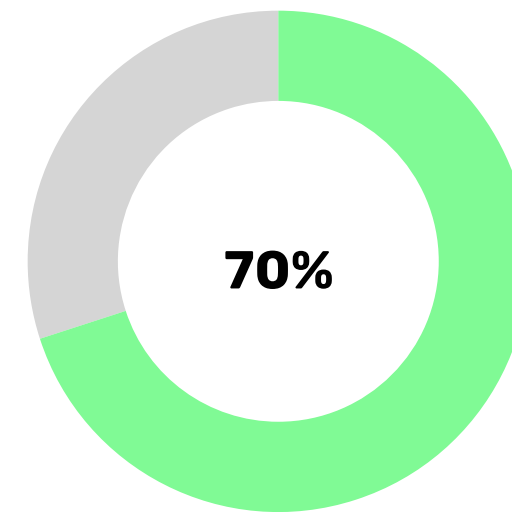
RECYCLE EDUCATION



Learned about recycling during childhood

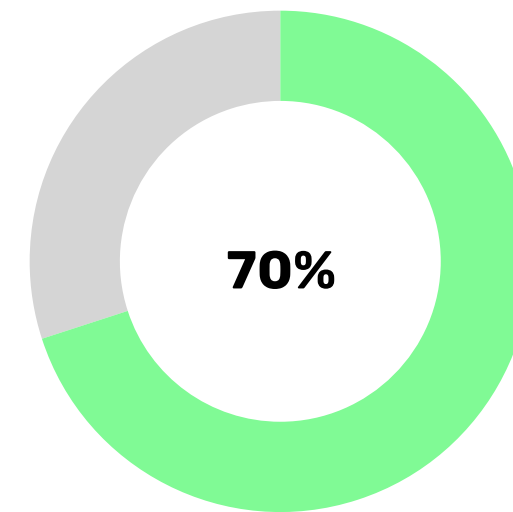
Avg age: 47.7

RECYCLING DEMAND



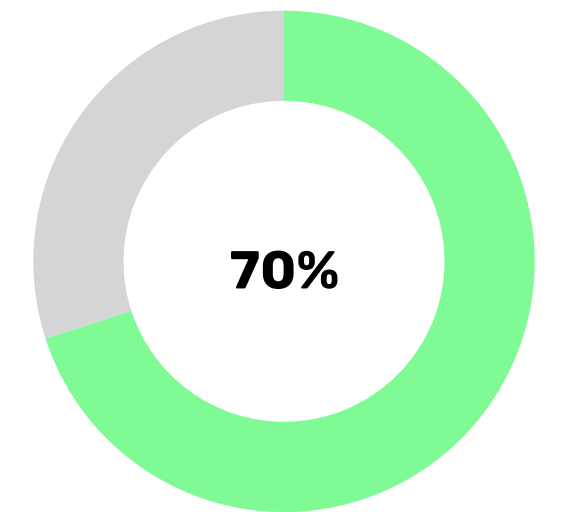
Corporate and government should do more

RECYCLING MANDATE



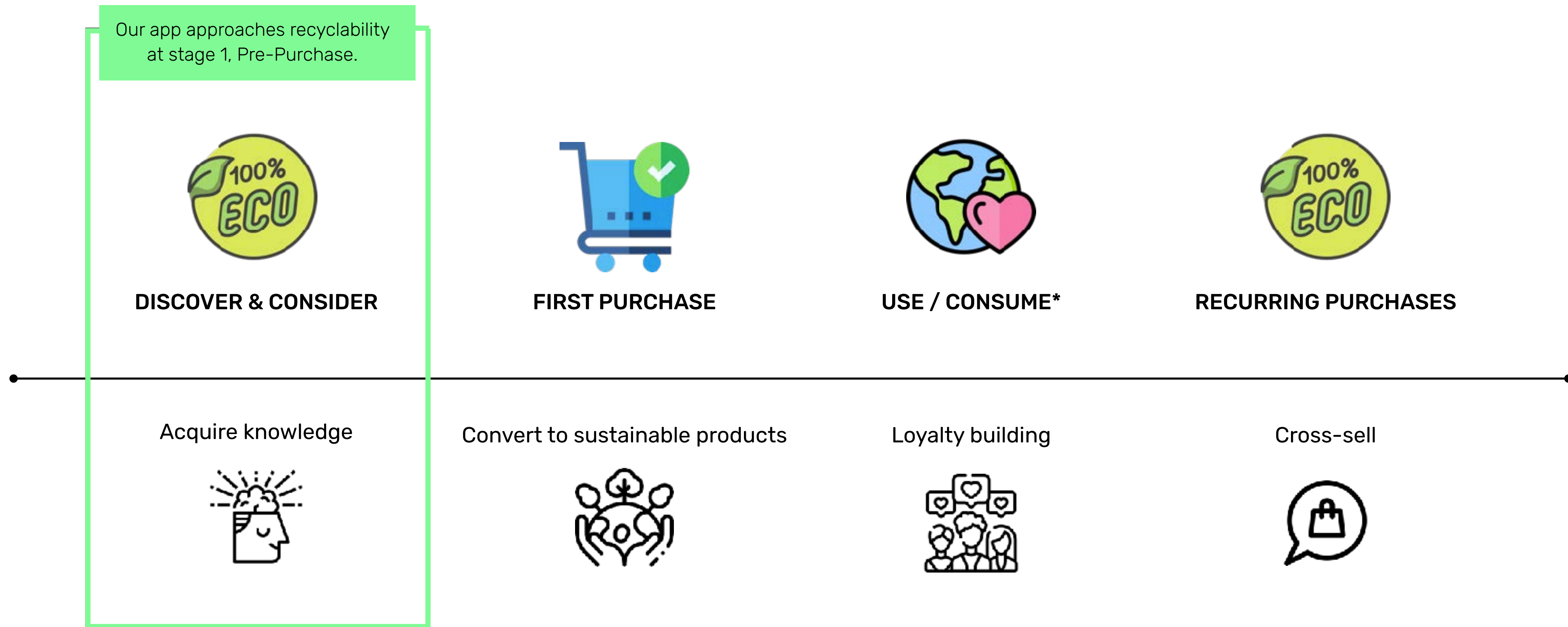
Mandatory recycling; esp corporations including penalization

RECYCLING INCENTIVE



Believe Incentivizing can motivate and be effective

Targeting consumers at the beginning of their journey



* All existing apps researched to date target recycling AFTER the customer has already made the purchase.

Buy sustainable products.

Buying recycled products is an important step in completing the lifecycle of a recycled item and “closing the loop” on the recycling process.

A truly sustainable product is both recyclable and recycled. Apr 20, 2021

How might we help consumers be more eco-conscious so that they can improve their shopping habits?

Proto personas

“I want to know that what I am buying is better and not hurting worse, but I just don’t know.”



THE UNSURE CONSUMER

“What difference does it make anyway? There must be something I can do better.”



THE DISHEARTENED CONSUMER

“I’m sure it’s all good and we’re gonna be OK, right?”



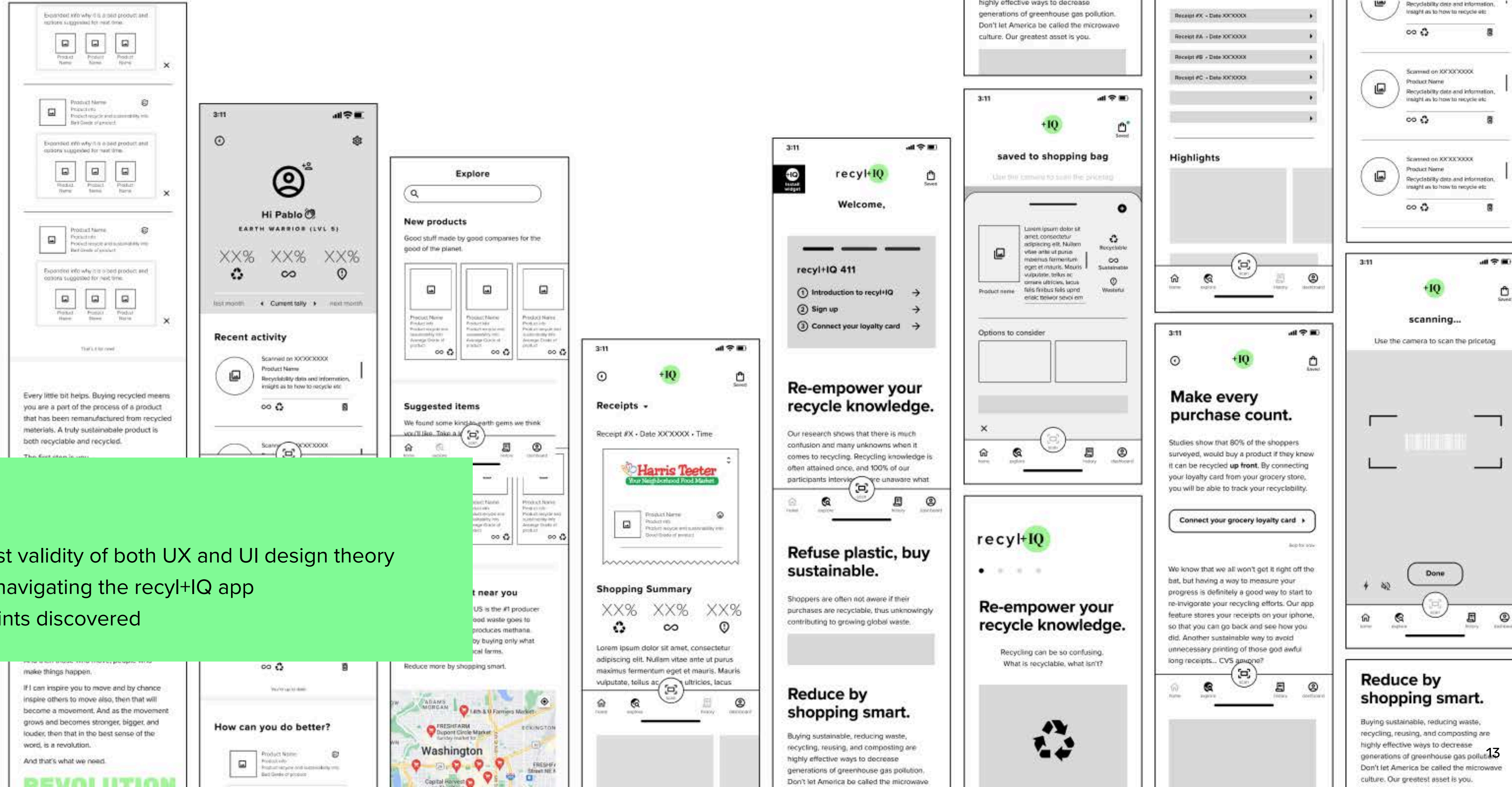
THE “I BELIEVE” CONSUMER

USABILITY TEST ROUND 1

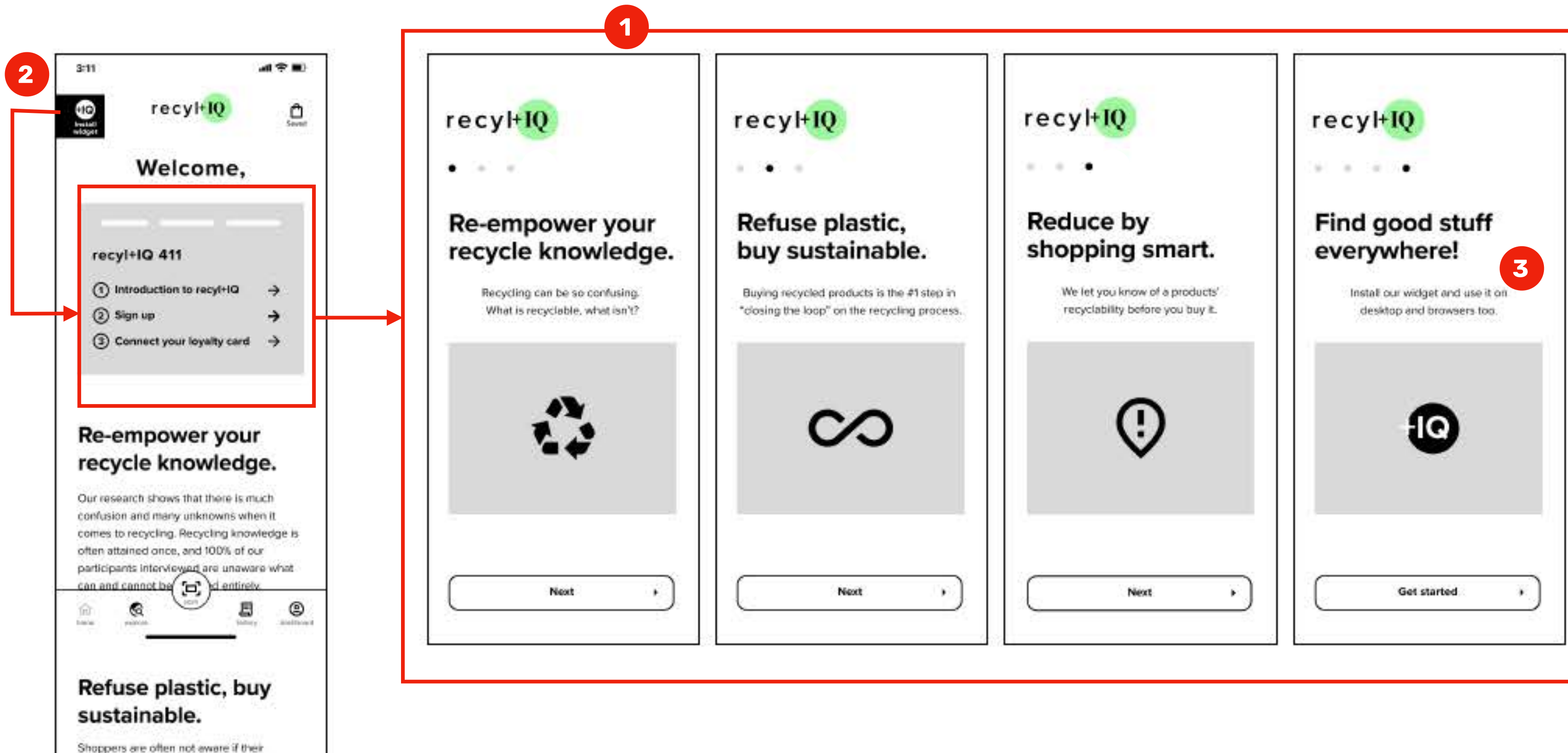
Mid Fidelity Prototype Usability Testing

OBJECTIVES:

- 1. Test all prototyped flows to test validity of both UX and UI design theory
- 2. Observe user behavior while navigating the recyl+IQ app
- 3. Analyze responses to pain points discovered



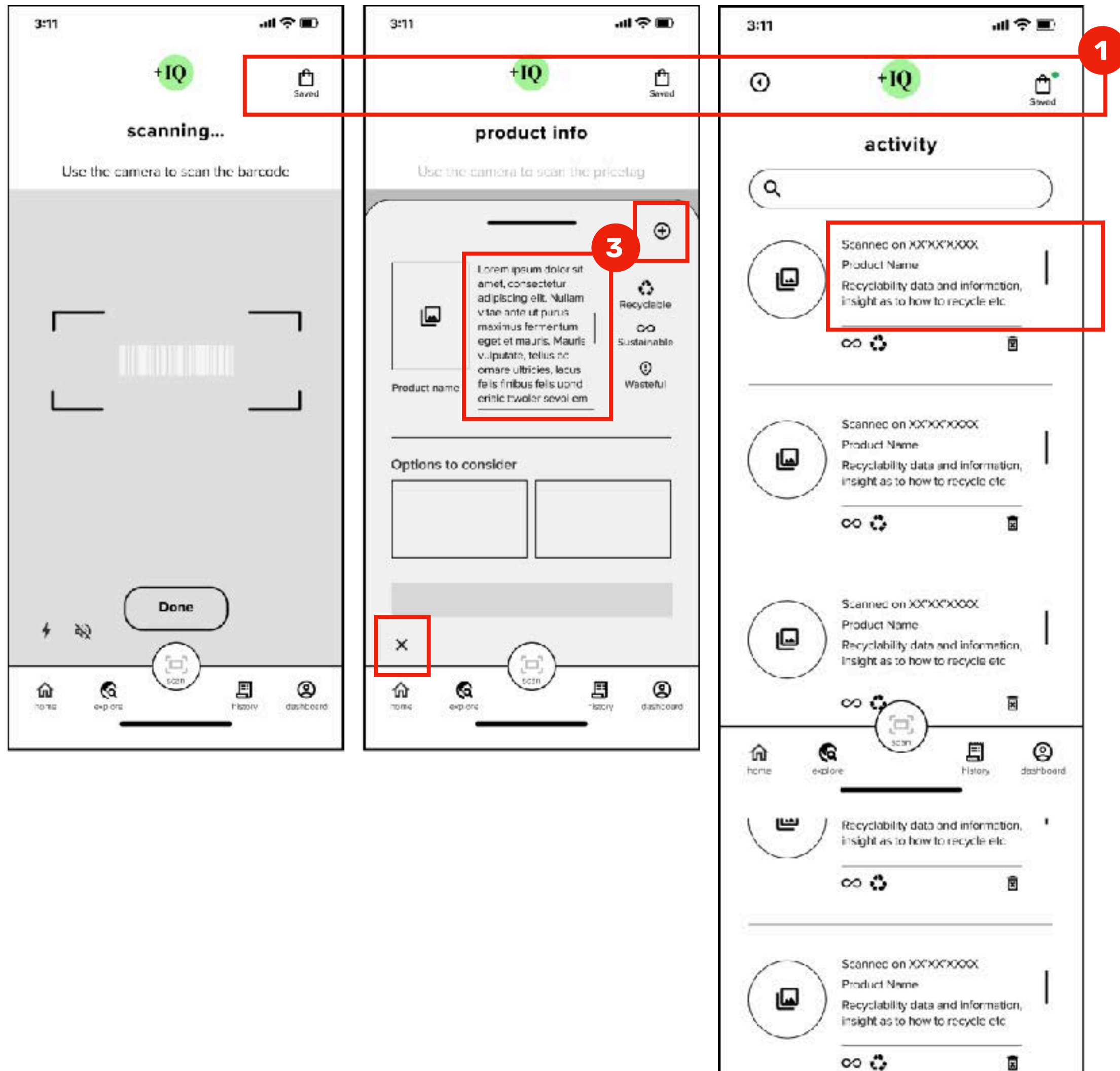
Onboarding flow



App Introduction Enhancements

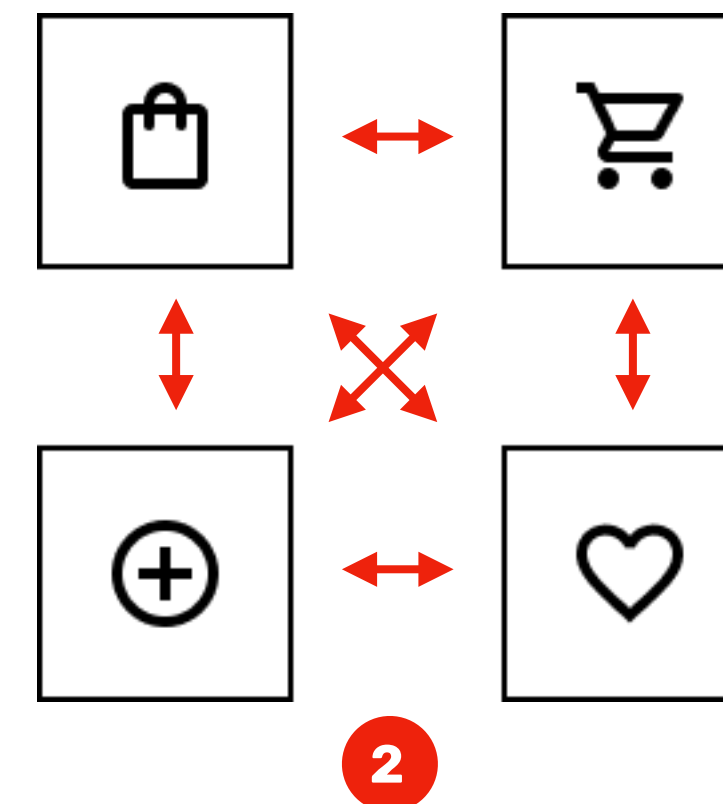
1. No introduction cards to the app caused much confusion
2. I had loaded too much cognitive recognition rather than recall, which caused more confusion than necessary
3. Too much content

Scanning flow



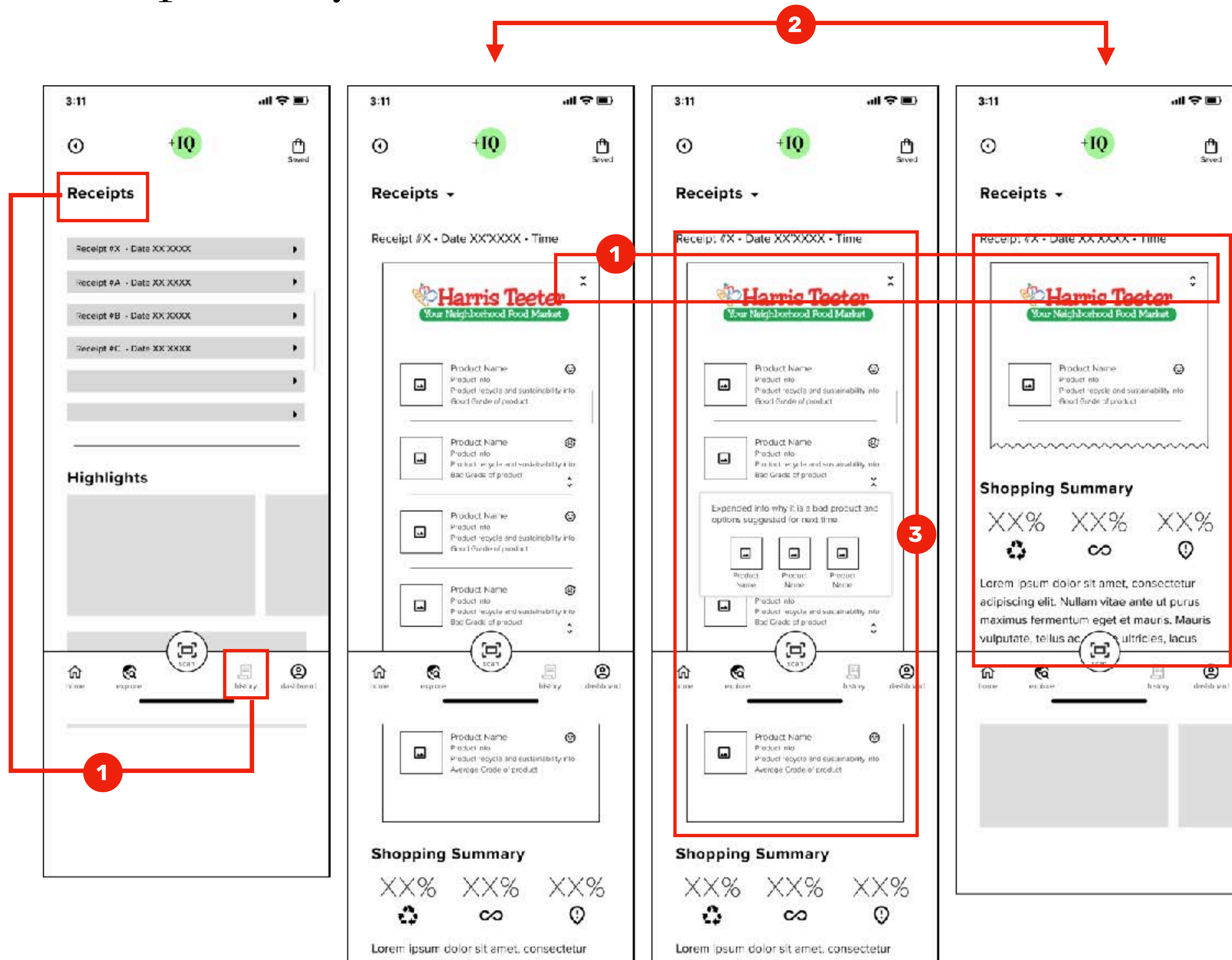
Use Best Practices

1. Match between system & real world was off
2. I A/B tested words and icons. Add vs Saved, Saved vs Liked, and for icons, shopping cart vs shopping bag, shopping bag vs heart icons.
3. In the process, a question arouse, Is the purpose of the app to shop from the app, or attain more information for later for the consumer? Clearly, lots more to do here still.



MID FIDELITY USABILITY TESTING

Receipt history flow



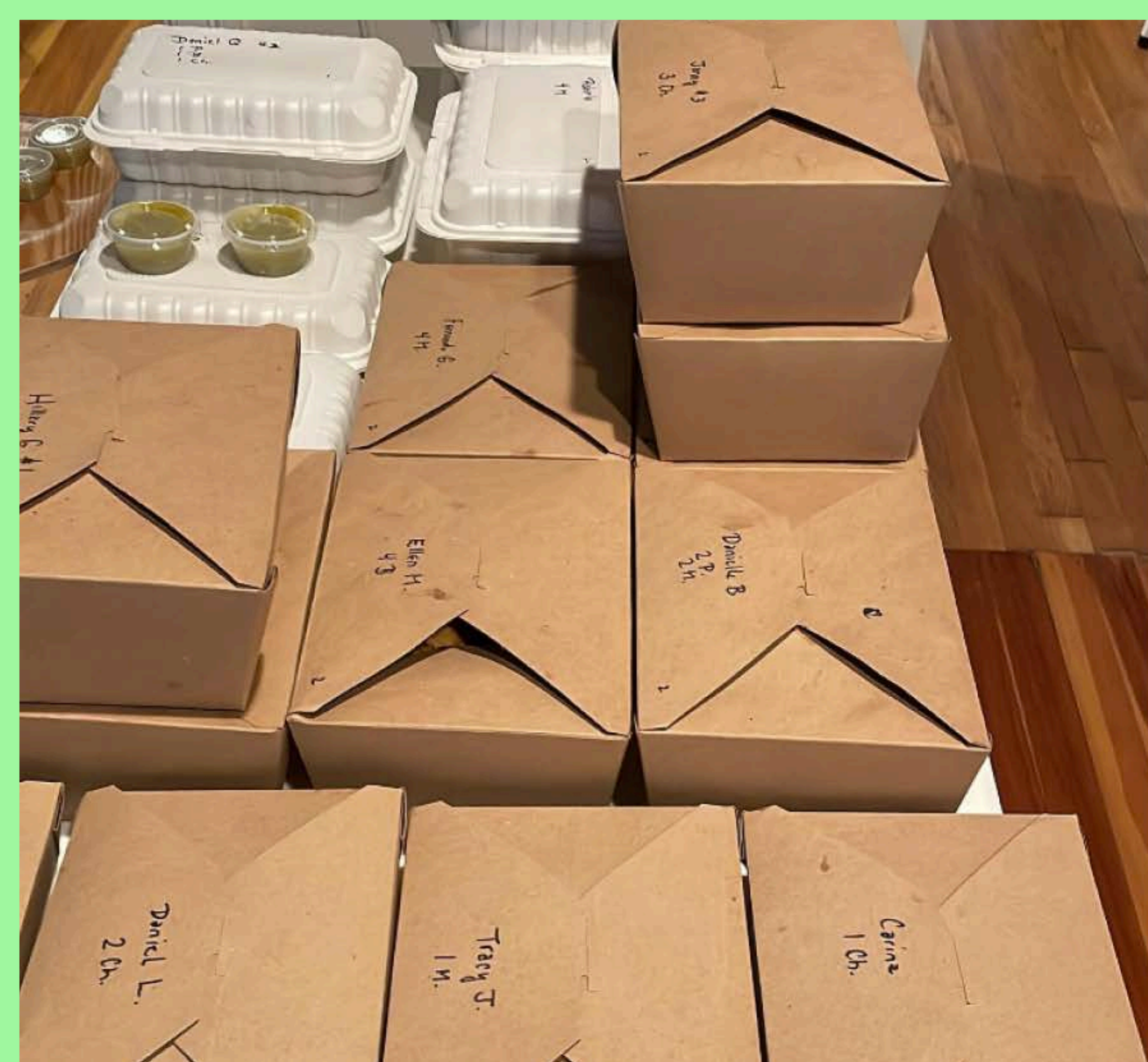
Consistencies and Standards

1. Icons and labeling used were not recognized by the users
2. Reviewing the full form of the receipt upfront was information overload
3. The receipt page looked cluttered, dropped engagement by users

The consumers tested expressed great interest in being able to gauge a products' recyclability before paying for it.

This empowered the consumers with not only a products recyclability, but also of recycling knowledge itself, peaking renewed interest.

They are once again motivated in recycling, are beginning to engage in sustainable practices, and take an active role in improving their daily habits where they can.



malenaskitchenc Following

malenaskitchenc Beat the storm! Food is ready!
2d

southerngothamite So sad to miss this week!
2d Reply

diamantegirlinamonroe Nice packaging!!! 🍀🍀🍀
2d Reply

— Hide replies

malenaskitchenc Thanks to you in part!!!
2d 1 like Reply

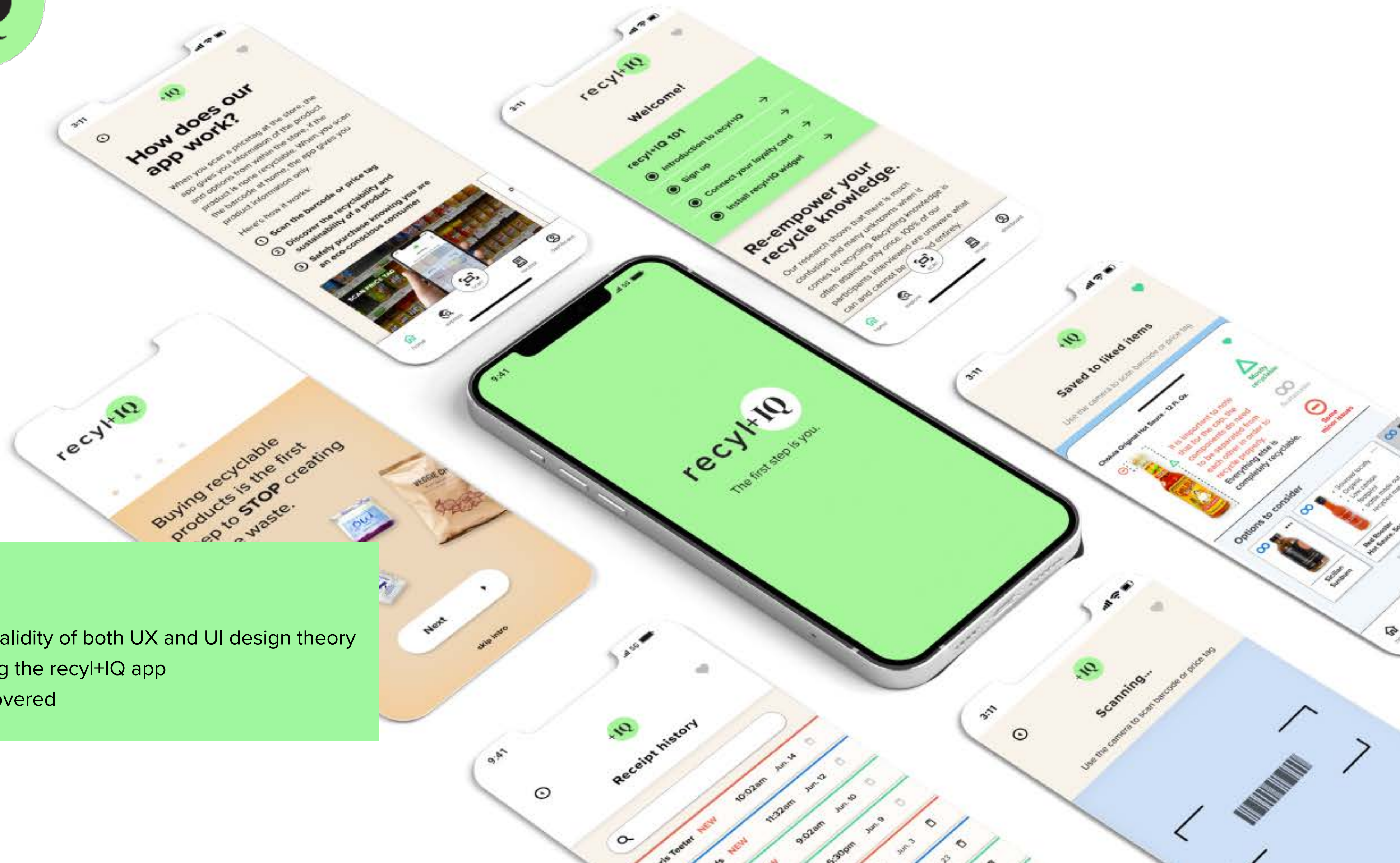
martatrevino 🤔 What did you guys cook? ❤️
2d Reply

— View replies (1)

❤️ 💬 📍 🏷️

How might we help consumers be as eco-conscious as possible so that they can improve their shopping habits, while increasing their knowledge of environmentally responsible products?

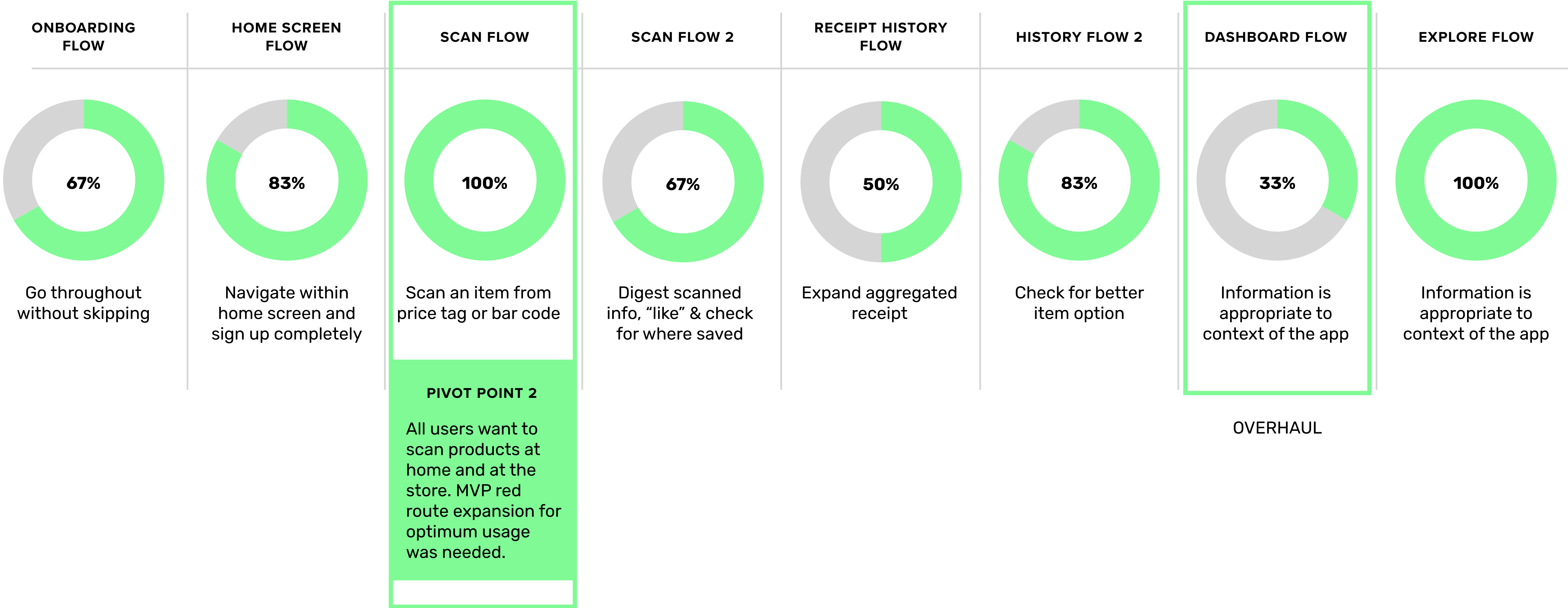
recyl+IQ



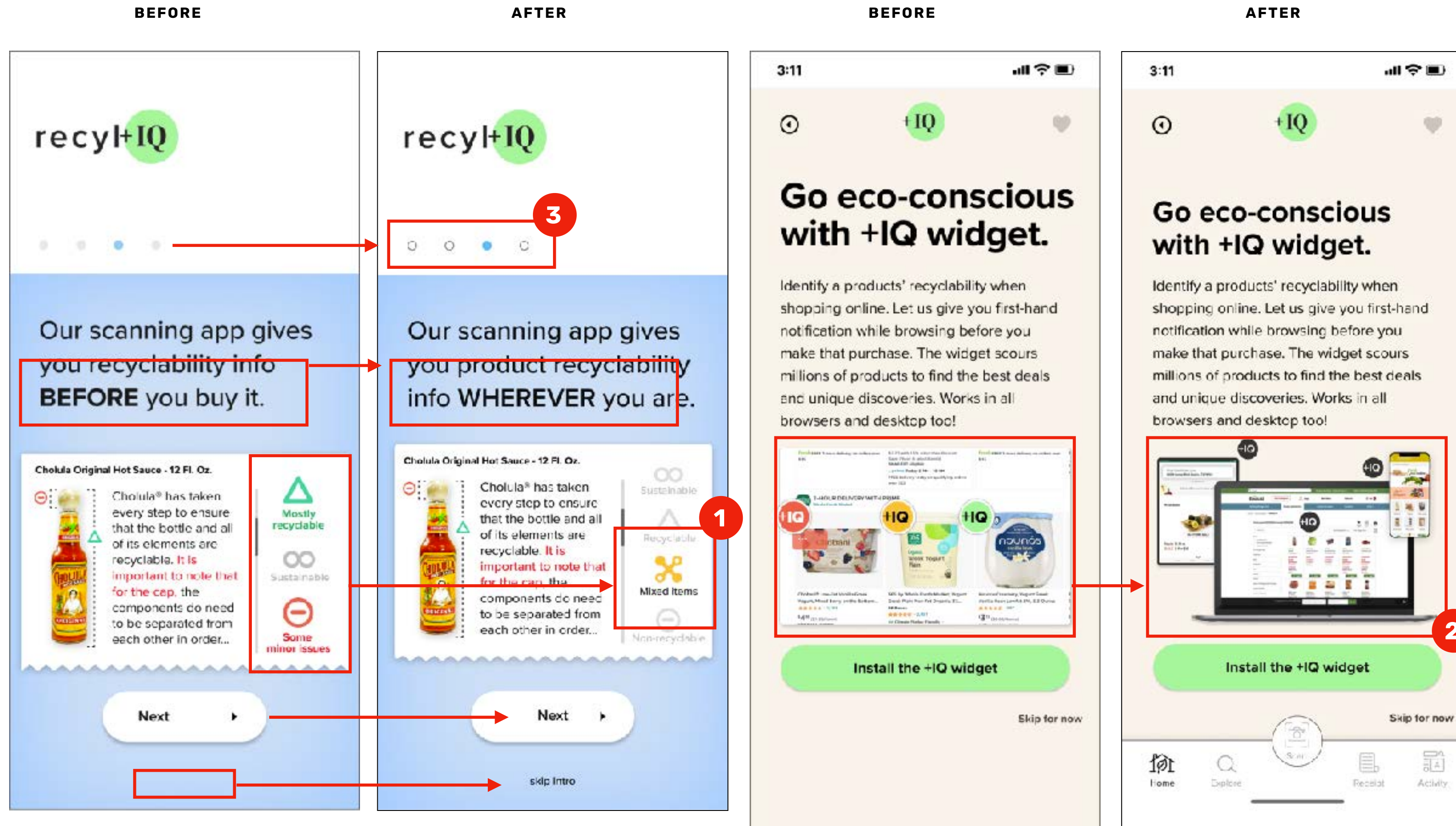
OBJECTIVES:

1. Test all 5 prototyped flows to test the validity of both UX and UI design theory
2. Observe user behavior while navigating the recyl+IQ app
3. Analyze responses to pain points discovered

Usability test findings



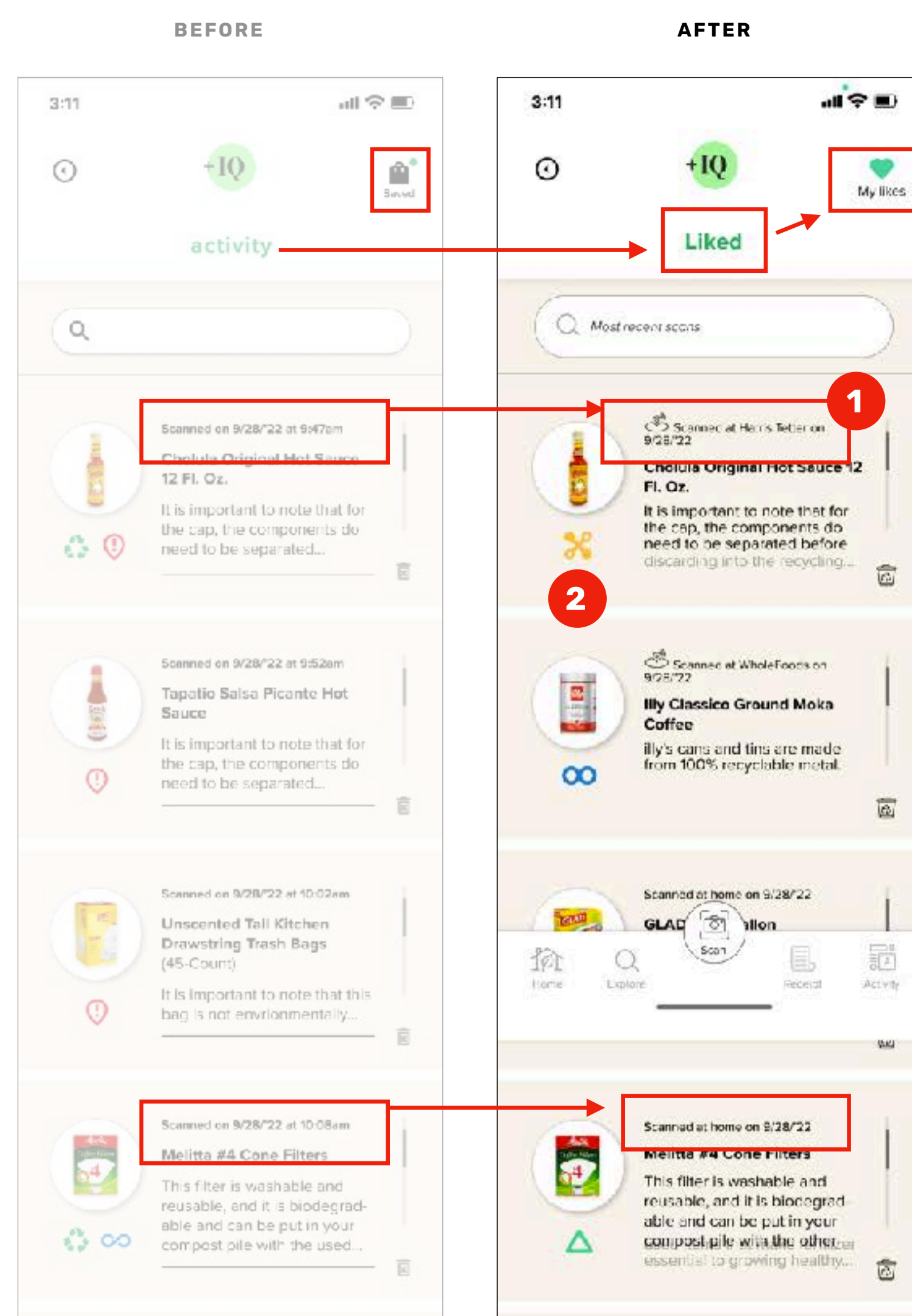
Onboarding flow



Finessing and making consistent

1. Combining 2 icons to mean a unified message did not work, I needed to establish an additional visual to elaborate better
2. I needed to provide better images that relayed to the content better
3. Addressed accessibility issues throughout

Scanning flow



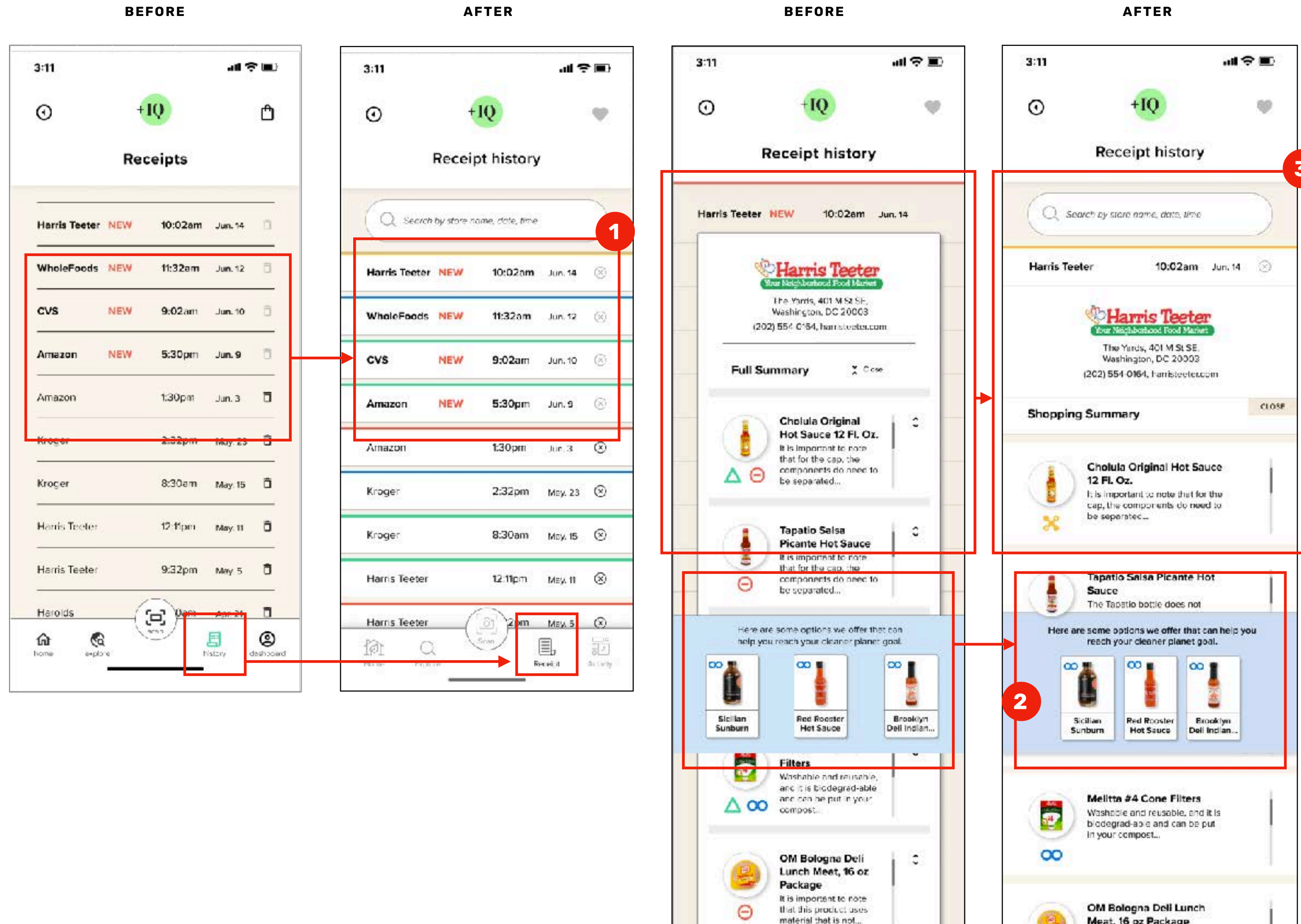
Readdress key feature/pivot

1. All participants wanted to use the app at home and in-store, I added geo-location and enhanced scanning feature
2. Again, using 2 icons to mean a 3 thing constituted a lot of confusion. Developing a 4th icon that was aligned visually to the other 3 already established ones was needed.



3. Added micro interaction consistent to users' action and attribution to feature offered

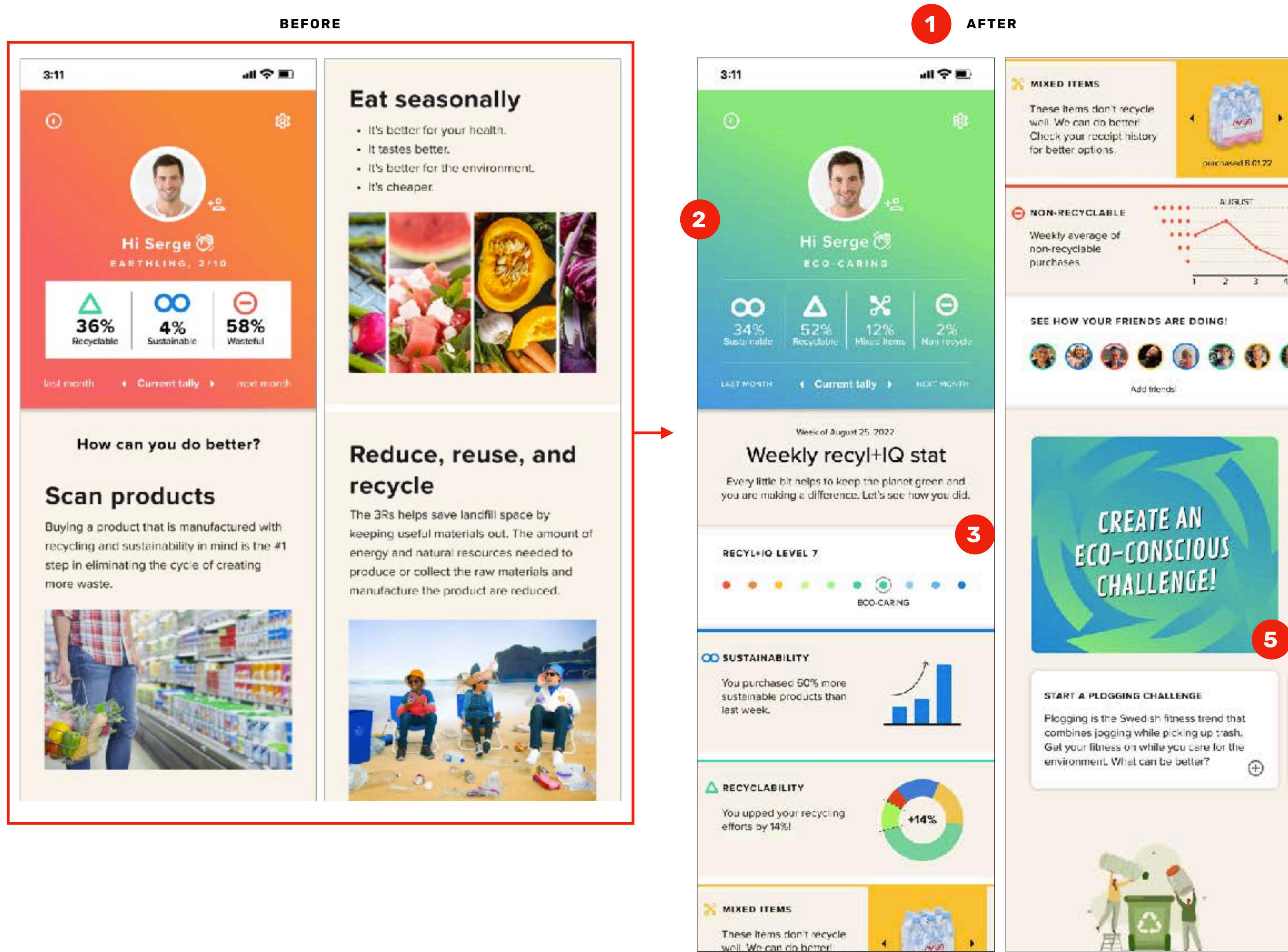
Receipt history flow



Provide Better User System to Real World

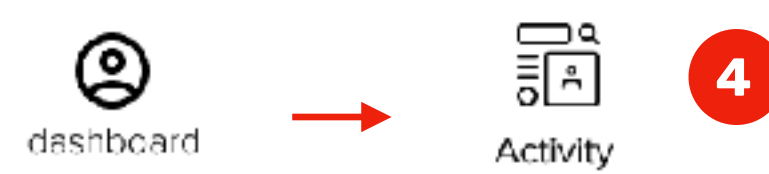
1. Users wanted a way to begin to know what to expect to see, visual nudge added
2. Dropdown feature of sustainable options was disconnected with the visuals that it was hard for the user to make sense of intent
3. Pop-up prototyping created issues that will arise at the development stage

Dashboard flow



Provide Better Content-First Design

1. Revised dashboard content to be more metric-based information vs blog and based the content on the 4 established criteria from the app
2. Used positive messaging instead of a negative reverse-psychology approach
3. Created a user status infographic chart
4. Changed navigation verbiage and icon from Dashboard to Activity to promote actionable content and to better represent the section
5. Implemented competitive content and members-based events to promote inclusivity, interaction, and to broaden audience

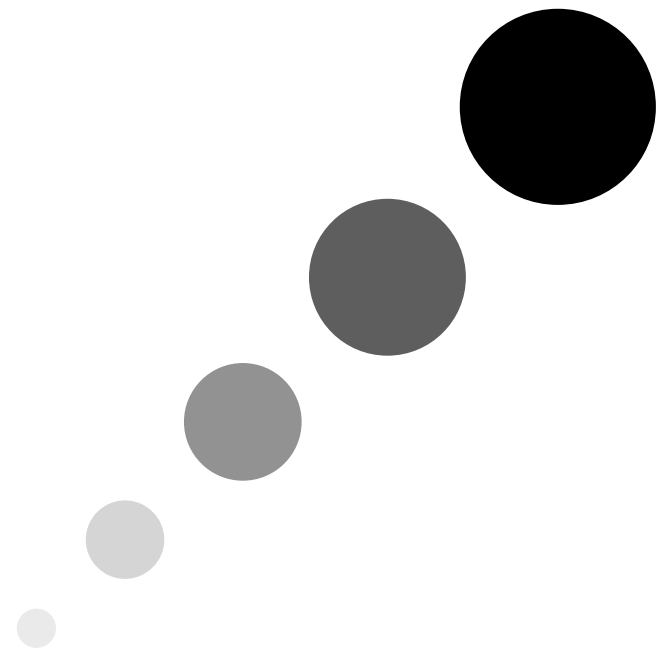


CONCLUSION

Product Demo: Scanning flow

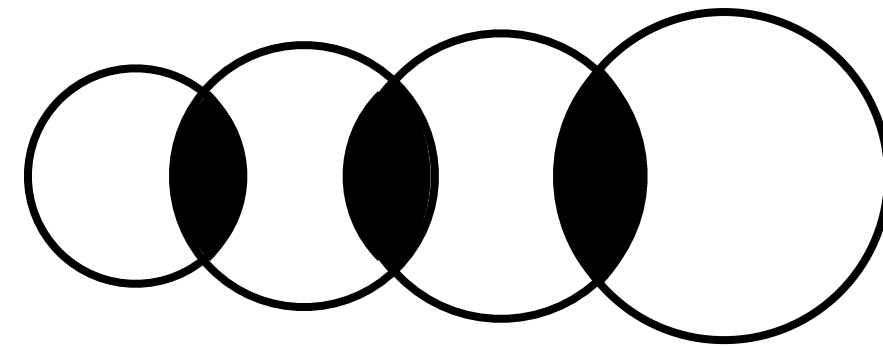


Next steps



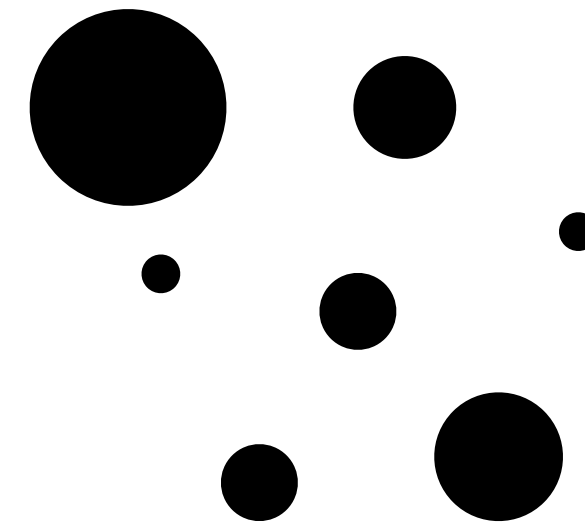
Flesh out app and features, onboarding process, video integration, and Activity journey

100% of participants expressed interest in the continued development



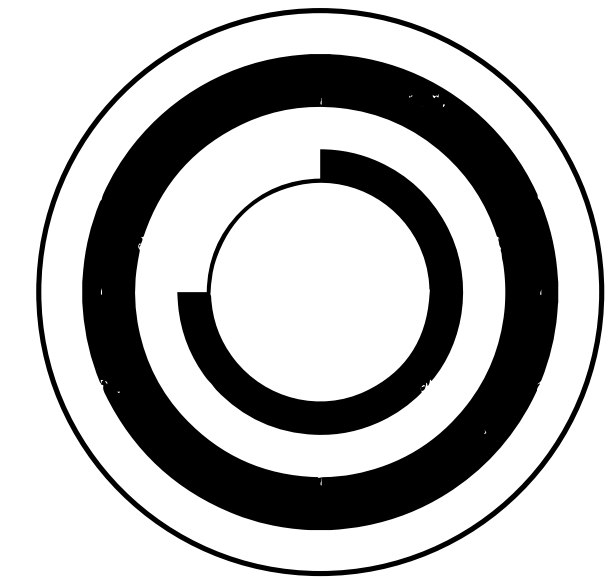
Continued user testing, iteration, and development, make viable for market

100% of participants tested on both rounds want an app like recyl+IQ



Social media campaign brainstorming and marketing strategy

Good habit to consider and create elevator pitch for any opportunity



Technology research for app integration

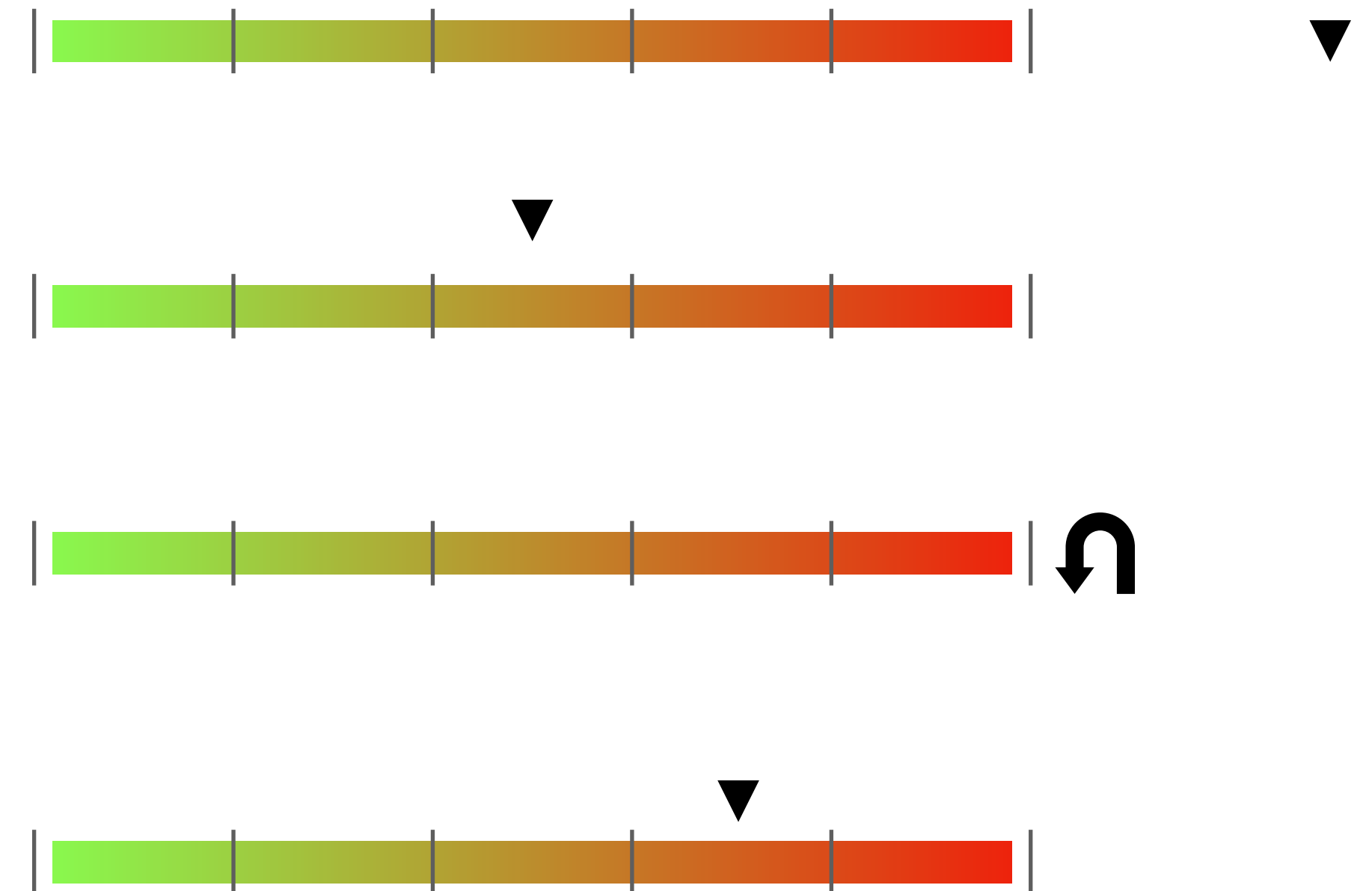
In communication with business ventures

CONCLUSION

Reflection

1. This was the first time I undertook the entire UX/UI research and design process from start to finish on my own.
2. I did not do any of this alone. I had help from my peers, participants, user testers, friends, professors, and mentors who have been extremely gracious with their time.
3. The more I acknowledged pivoting and explored deeper, the more I understood the users' motivations in ways I had not imagined. It is in the unseen when brought forth, when you finally understand.
4. There are so many approaches in UX and as I grow, I hope to be able to articulate my findings better, more cohesively.

MENTAL MODE



recyl+IQ

APPENDIX

[slate.com](#)

[The guardian](#)

[National geographic](#)

<https://www.forbes.com/sites/blakemorgan/2021/04/21/why-is-it-so-hard-to-recycle/?sh=794790ab3b77>

<https://www.recyclebank.com>

[https://money.usnews.com/money/personal-finance/saving-and-budgeting/articles/how-to-make-money-recycling#:~:text=Currently%2C%20only%2010%20states%20\(and,New%20York%2C%20Oregon%20and%20Vermont.](https://money.usnews.com/money/personal-finance/saving-and-budgeting/articles/how-to-make-money-recycling#:~:text=Currently%2C%20only%2010%20states%20(and,New%20York%2C%20Oregon%20and%20Vermont.)

<https://recyclingworksma.com/learn-more/buying-recycled-products/>

<https://www.ibisworld.com/industry-statistics/market-size/recycling-facilities-united-states/>

<https://archive.epa.gov/wastes/conservation/tools/rmd/web/html/result.html#:~:text=Recycling%20and%20Reuse%20Add%20Value,%24236%20billion%20in%20annual%20revenues.>

Do you Buy Recycled? Make thoughtful purchases that ...

[Participant Survey. Affinity Map. Pain points. motivation discovery](#)

Sustainability & Consumer Behaviour 2021 | Deloitte UK

<https://masschallenge.org/article/recycling-startups>

<https://goodonyou.eco/brands-using-recycled-plastic/>

<https://www.insider.com/companies-using-recycled-plastic-in-products>

<https://www.theatlantic.com/technology/archive/2019/03/china-has-stopped-accepting-our-trash/584131/>

<https://www.sustainablefoodtrade.org/our-members/>

APPENDIX

[Capstone Pitch Presentation](#)

[Participant Survey](#)

[Affinity Map](#)

[Value Proposition Canvas](#)

[Competitive Analysis Matrix](#)

[Market Research](#)

[Mind Mapping](#)

[Solution Sketches](#)

[Storyboard Scenario](#)

[Recycling Survey](#)