
Assignment 20.1: Submit Your Finalized Capstone Project



The GreenCard From Mastercard

-Ashi Jain

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Executive summary

Mastercard is launching the GreenCard, a sustainability-focused credit card designed for environmentally conscious millennials. The card rewards everyday spending by funding carbon offset purchases, helping cardholders make a positive environmental impact.

- **Target audience:** Millennials concerned about climate change.
 - **Carbon offset reward:** 2 pounds of carbon offsets purchased for every \$1 spent on net purchases through the American Carbon Registry.
 - **Welcome bonus:** Spend \$1,000 within the first 3 months to earn an additional 5,000 pounds of carbon offsets.
 - **Purpose:** Encourage sustainable spending while supporting carbon reduction initiatives.
-



Vision, Mission and Strategic Foundation

Vision and Mission		Values and Culture	
Vision - To make climate positive action effortless and accessible by embedding carbon offsetting into everyday spending, empowering millions of consumers to fight climate change with every purchase, easily without changing their lifestyle. Mission - The GreenCard's mission is to help environmentally conscious consumers reduce their carbon footprint without changing their lifestyles by automatically converting everyday purchases into verified carbon offsets, while strengthening Mastercard's leadership in sustainable, digital-first payment solutions.		▪ Customer 1st approach ▪ Simplicity ▪ Digital innovation ▪ Sustainability with Integrity ▪ Awareness about environment ...	
Arenas	Bets	Competencies	
▪ US Credit card market ▪ Digital only payments ▪ Millennials ▪ Digital approach ▪ No to non climate charitable rewards	Customers will be using a card that automatically affects the climate without altering their behaviour. ▪ Apple Pay/Google Pay integration ▪ Simple and easy carbon related rewards ▪ Welcome bonus	▪ Mastercards's global payment network ▪ Brand trust & scale ▪ Environment conscious - Most of the rewards go to carbon offsets ▪ Verified offset partnership and network scale	
Metrics		Hurdles	
▪ The total number of GreenCard holders ▪ The total transactions ▪ Purchased carbon offset in pounds ▪ Retention ▪ Average amount spent per user		▪ Maintaining a sustainable market ▪ Offering competitive rewards compared to similar environmentally-focused credit cards ▪ The price of carbon offsets ▪ Greenwashing Skepticism Mitigation - ▪ Transparent reporting ▪ Educating customers in a simple and clear manner	

Bio

Maya is a tech savvy millennial professional who makes extensive use of online shopping mobile payments and subscription services. She favours companies that share her ideals on the environment and society. She rarely ever carries physical cards and utilises Apple Pay every day.

Personality

VALUE DRIVEN

SOCIALLY CONSCIOUS

TECH-SAVY

CONFIDENT

STUDIOUS

OPTIMISTIC

Goals

- Make eco-friendly decisions without drastically altering her way of life.
- Make sure the money she spends each day supports causes that are important to her.
- Make her financial tools simpler by combining rewards into something useful.
- Encourage companies that take genuine climate action.
- Be viewed as socially responsible and forward-thinking.
- Maya wants to stay financially responsible while maximizing benefits...

Maya Thompson



Age: 30

Location: **Washington DC**

Job Title: **Senior Marketing Manager at a tech company**

Education: **Bachelor’s degree in Business Administration**

Income Level: **\$85,000 annually**

Experience: **6+ years in digital marketing and brand strategy**

Living Situation: **Rents an apartment in an urban neighbourhood; no children**

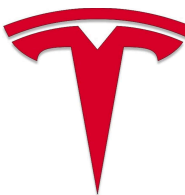
Motivations

- Effortless Sustainability
- Alignment with Personal Identity
- Social Proof & Community Participation
- Desire to Make a Tangible Environmental Impact

Frustrations

- Researching whether companies are genuinely sustainable or its just marketing.
- Managing multiple reward systems.
- Navigating complicated redemption processes.
- Feels climate change is overwhelming and doesn’t know if her small actions matter.

Brands she follows and loves



Media consumption



Product Opportunity Brief

Executive summary

Customers want an effortless way to support climate action through everyday spending. They seek rewards that align with their values, a seamless digital experience, and transparent proof of their environmental impact. GreenCard fulfills these needs by making sustainability automatic and measurable.

Market size

With over 500 million credit cards in circulation in the U.S., environmentally conscious millennials represent a large and growing market. By attracting this segment, GreenCard can increase transaction volume, generating higher interchange and network fee revenue while strengthening Mastercard's position in sustainable finance....

Target Customer

Maya Thompson is a tech-savvy, environmentally conscious millennial who prefers mobile payments and wants her spending to reflect her values. She seeks a simple, transparent way to support climate action without changing her daily habits, making GreenCard a compelling alternative to traditional cashback and travel rewards cards....

Product Concept

GreenCard is a digital-first credit card that automatically purchases verified carbon offsets for every dollar spent through the American Carbon Registry. Integrated with Apple Pay and Google Pay, it enables users to support climate action effortlessly while making sustainability a seamless part of everyday spending.

Business Model

GreenCard earns mainly through interchange fees and higher spend, not annual fees. Its eco-positioning attracts values-driven millennials, increasing card usage, while also strengthening brand, issuer partnerships, and customer retention.

Risks and Unknowns

Carbon offsets may feel less tangible than cash back, reducing appeal. Offset costs can compress margins if spend falls short. Competitors could copy the model with stronger rewards. Lack of transparency may create skepticism. Success depends heavily on marketing and issuer partnerships.

Business Model Canvas

Key Partners		Key Activities	Value Propositions
▪ Carbon offset organisation such as American Carbon Registry ▪ Integrated banks and financial organisations ▪ Digital Payment platforms like Apple Pay and Google Pay ▪ Sustainable brand partners.		▪ Card Transactions ▪ Purchase verified carbon offsets ▪ Digital wallet integration ▪ Customer Engagement ▪ Advertising and Marketing...	▪ Automatic carbon offsets for every purchase ▪ Easy way to support climate action through regular transaction ▪ Honest and measurable environmental impact. ▪ Seamless digital payments....
Customer Relationships	Customer Segment		Key Resources
▪ Digital self-service onboarding ▪ App dashboard showing real time environmental contribution ▪ Sustainability updates via notification ▪ Customer engagement and milestone rewards	▪ Environmentally conscious millennials ▪ Digital first customers ▪ Young professionals ▪ Customers interested in sustainability		▪ Payment infrastructure of Mastercard ▪ Technology platform ▪ Data Analysis ▪ Partnership with sustainability organisation. ▪ Financial Brand collaboration and network.
Channels	Cost Structure		Revenue Streams
▪ Mobile Wallet ▪ Mobile banking apps ▪ Social Media ▪ Digital marketing ▪ Financial brand partner	▪ Carbon offset purchases ▪ Technology development ▪ Maintenance ▪ Customer Acquisition ▪ Partnership costs		▪ Transaction fees ▪ Annual card fees ▪ Increased network purchase volume ▪ Sustainable brand partnership

Business Model Selection - Transaction-based revenue

- Revenue from **interchange fees on card spending**

- Example:

1. 50,000 users
2. Avg spend: **\$800/month**
3. Interchange revenue: **1%**

Annual revenue: $50,000 \times \$800 \times 1\% \times 12 = \textbf{\$4.8M}$

Selected MVP Type: Single feature MVP

The most suitable MVP strategy for Mastercard's GreenCard is a Single-Feature MVP focused on the card's core differentiator: automatic carbon offsetting linked directly to consumer spending.

This MVP focuses on the essential features required to test the primary hypothesis, which is that people who care about the environment will use a credit card that automatically transforms purchases into climate changes. Digital enrolment, wallet integration, and a simple impact tracker would be included in the initial version; after demand is established, more features would be added.

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MVP definition and user stories

Theme 1 - Onboarding and account setup

Epic 1 - Seamless Digital Enrolment

(Enable users to apply, get approval, and start using the GreenCard quickly through a mobile 1st experience)

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Theme 3: Payments and Regular Usage

Epic 2 - Seamless Digital Payments
(To ensure that the payment integration with the GreenCard is seamless and blends in well with the everyday spending habits of the user)

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Theme 2: Climate Impact and Rewards Visibility

Epic 2 - Positive Impact Tracking
(Provide users with clear visibility into the environment impact created by their spendings)

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Theme 4: Customer Engagement and Retention
Epic 4 - Behavioural Incentives and Social Engagement
 (Motivating customers to adopt and regularly utilise the GreenCard for payments)

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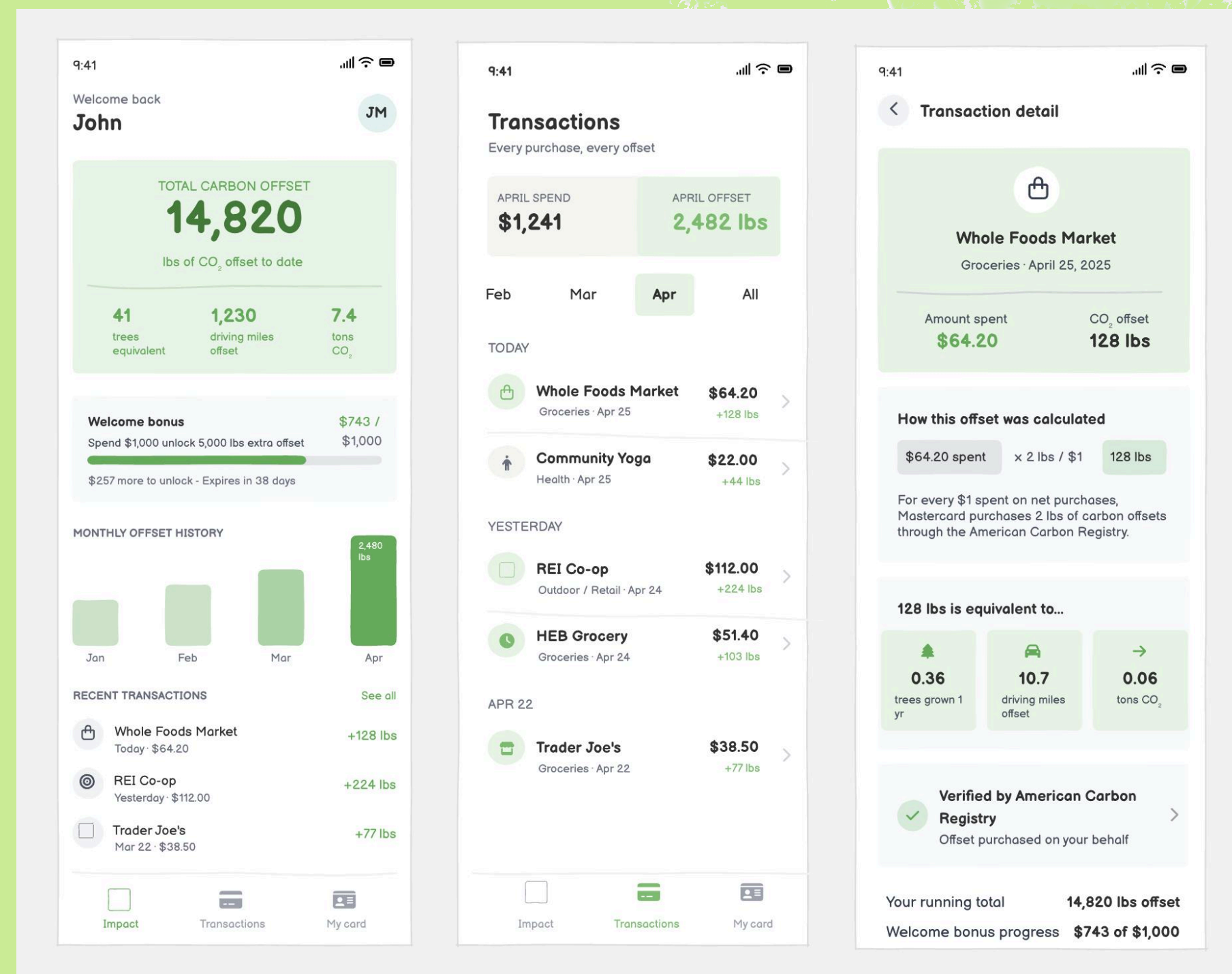
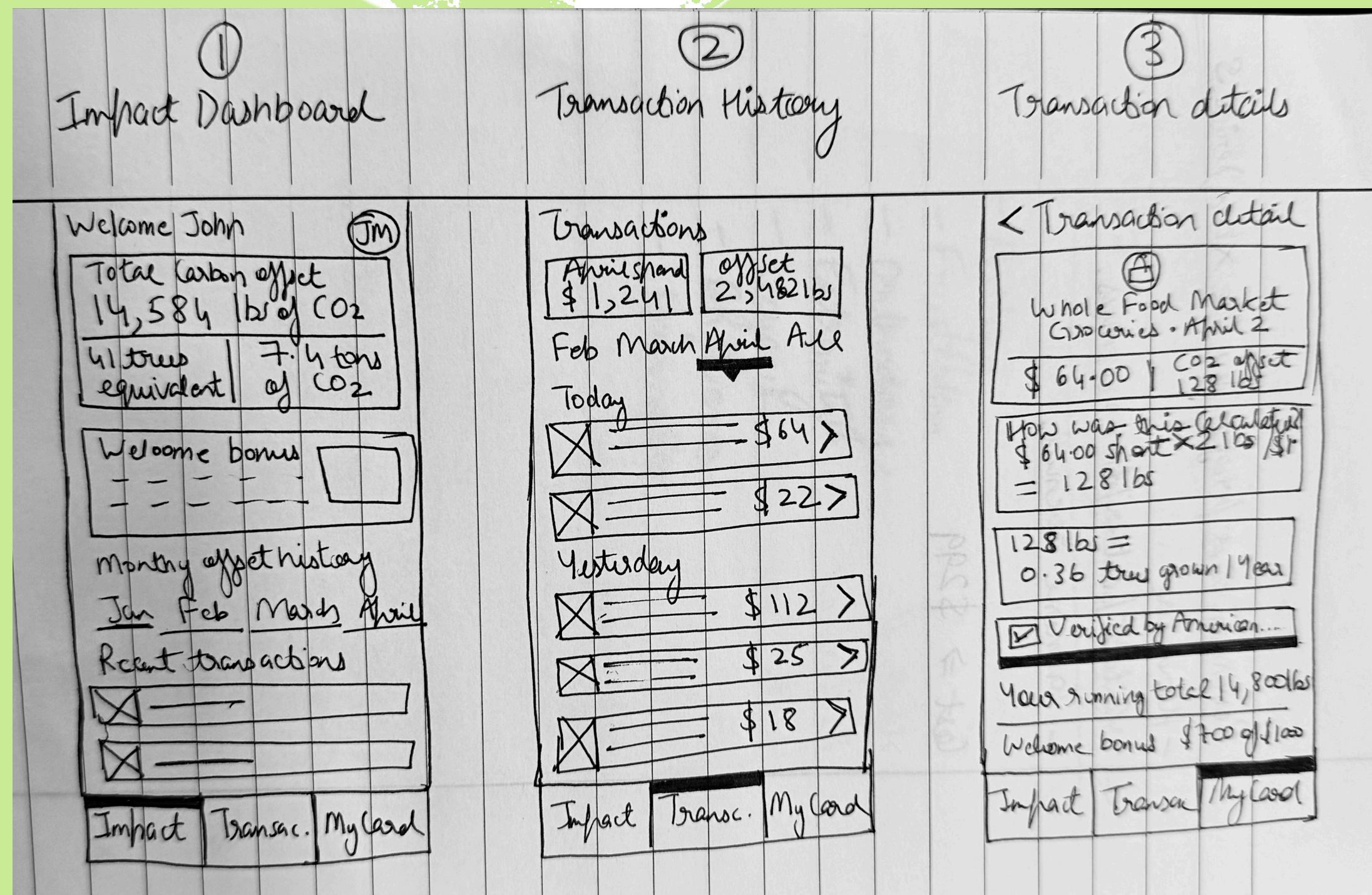
*User stories are in the notes below this slide

Wireframes and Prototypes

IMPACT DASHBOARD

TRANSACTIONAL HISTORY

TRANSACTIONAL DETAILS



Design Thinking and User Research Summary

Design Challenge Statement

How might we enable environmentally conscious millennials to contribute to climate action through everyday spending while using digital payments methods?

Research Methods

- Structured Interviews (Qualitative/primary method)
- Surveys (to gather broader quantitative insights)
- Competitive analysis (existing eco-financial products)...

Research Participants

POTENTIAL USERS -

- Young professionals (25-30) using digital wallet.
- Environmentally conscious consumers.

EXPERTS -

- Sustainability professionals (carbon offset experts)
- Financial services/product managers.

ANALOGOUS USERS -

- Users of eco-friendly apps
- Loyalty/rewards app users...

Research Guide (Interview Plan)

Research objectives -

- Understand current spending habits
- Identify attitudes toward sustainability
- Explore trust in carbon offset programs...



IDEATION

Eco-friendly merchant rewards

Carbon offset per purchase

Personalised sustainability tips

Monthly impact reports

Round-up donations

Impact dashboard

Carbon footprint calculator

Partner discounts with eco brands

Gamified sustainability goals

Social sharing of impact

Community impact leaderboard

Green subscription model



IMPLEMENTATION (I would test the GreenCard prototype using)

Pilot testing -
with a small group to gather real world usage feedback

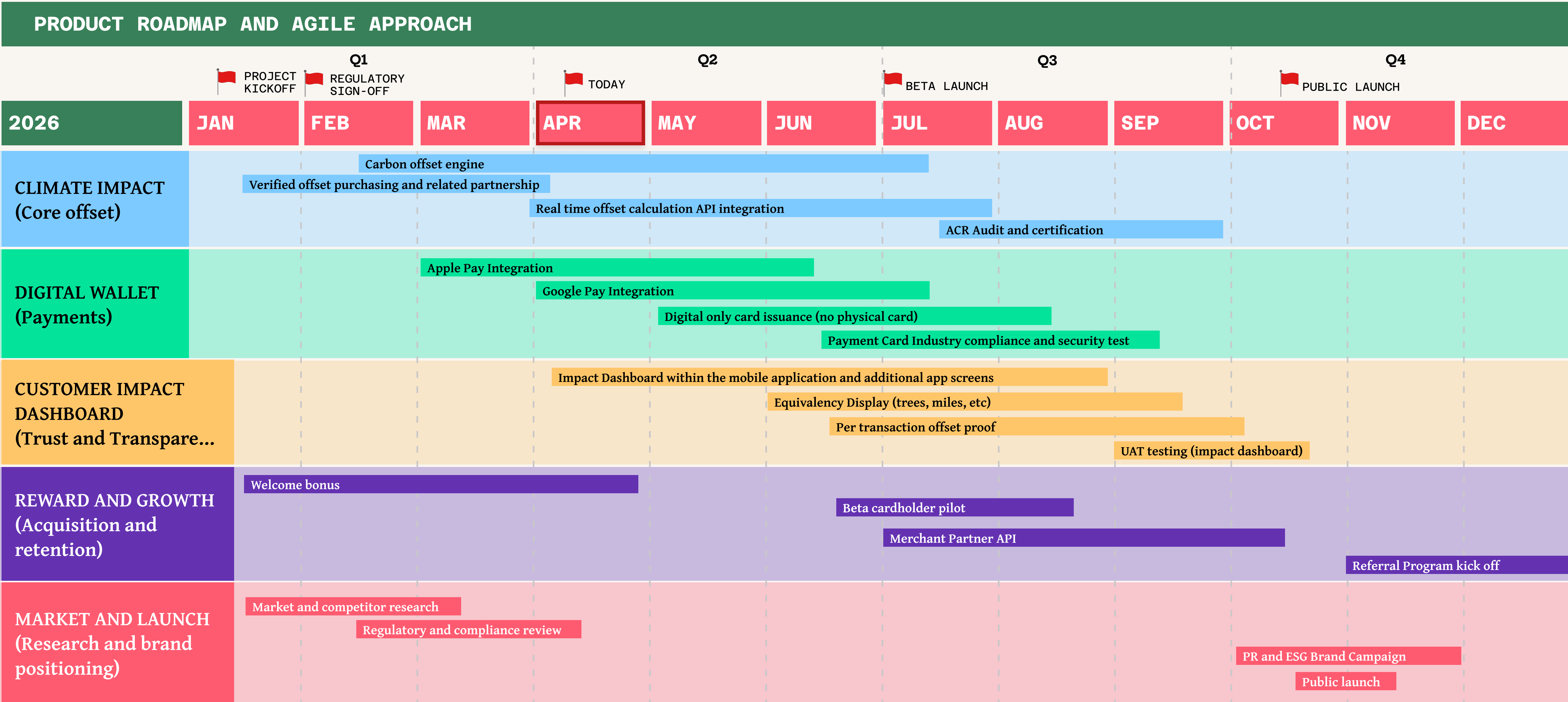
Usability testing -
to observe how easily users navigate the app and understand features

A/B testing -
to compare different designs and messaging

Key Insights to Gain -

The goal is to understand -

- Whether the product is easy and intuitive to use
- If users understand and trust the carbon offset feature
- Which features drive engagement and continued to be used
- What barriers may limit adoption.



Selected Framework: SAFe (Scaled Agile Framework)

SAFs is well suited for large scale organisation because it provides structure while enabling Agile practices at scale.

Why SAFe -

- Provides clear roles and shared backlogs
- Improves coordination via Agile Release
- Aligns team and stakeholders through Program Increment Planning

Benefits -

- **Cross team alignment** - Shared planning and roadmaps
- **Better decision making** - Real-time visibility and metrics...



Managing Distributed Teams

Communication Across Time Zones

- Using asynchronous communication tools within the team (Slack, email, recorded updates)
- Schedule overlapping working hours whenever possible
- Document all decisions and important communication clearly for global access.

Maintaining Team Cohesion & Culture

- Regular team meetings and retrospectives
- Team building activities
- Encourage open communication and feedback

Tools and Processes

Project Management



Documentation



Communication



Collaboration



Positioning Statement and Messaging

For environmentally conscious millennials who want to contribute to climate action without changing their daily habits, the GreenCard is a digital credit card that automatically converts everyday spending into measurable carbon offsets. Unlike traditional credit cards that offer cash back or points, we provide effortless, build - in sustainability with every transaction.

Messaging Statements

For Eco-Conscious Millennials (Primary Persona)

“Turn your everyday spending into climate action. With GreenCard, every purchase automatically helps offset your carbon footprint - no extra effort required”

For busy Professionals

“ Too busy to rethink your lifestyle? GreenCard makes sustainability effortless by turning your daily purchases into real environmental impact - automatically”

For Skeptical Consumers (Trust - forced)

“Not all green claims are equal. GreenCard provides transparent, trackable carbon offsets so you can see the real impact of every dollar you spend.”

Digital First Users

“Seamless, digital and impactful - GreenCard fits right into your mobile wallet while helping you make a difference with every tap.”



Product Pitch Overview

Selected Format - Pixar Sales Pitch

Environmentally conscious consumers wanted to fight climate change but lacked a simple way to make an impact through their everyday spending.

- **Challenge:** Traditional credit cards offered rewards like points or cash back, with no environmental benefit.
- **Solution:** Mastercard's GreenCard converts every purchase into carbon offsets automatically.
- **Impact:** Users support climate action without changing their spending habits.
- **Transparency:** A simple dashboard tracks their carbon offset contributions.
- **Outcome:** Sustainability becomes an effortless part of everyday life, empowering users to make a difference with every transaction.



Go to Market Plan



Target audience	Environmentally conscious millennials
Positioning	Automatic climate action through everyday spending
Channels	Apple Wallet, Credit Karma, digital marketing, social media
Launch partners	Patagonia (co-marketing), WWF (credibility)
Launch plan	PR campaign → Beta launch → Public launch
Growth Strategy	Referral program, partner promotions, social sharing

Partnership Strategy - Recommended Partner: Patagonia

Partnering with Patagonia helps GreenCard attract environmentally conscious customers through a trusted sustainability brand.

Patagonia Provides :

- Strong sustainability credibility
- Access to eco-conscious customers
- Co-marketing and exclusive offers

Mastercard Provides

- Access to millions of customers
- Increased sales for Patagonia
- Marketing exposure through GreenCard

Strategy: Ally (Co-marketing and rewards partnership with Patagonia) Partnership

- Bonus carbon offsets or discounts for GreenCard users at Patagonia
- Patagonia promotes GreenCard
- Joint sustainability campaigns

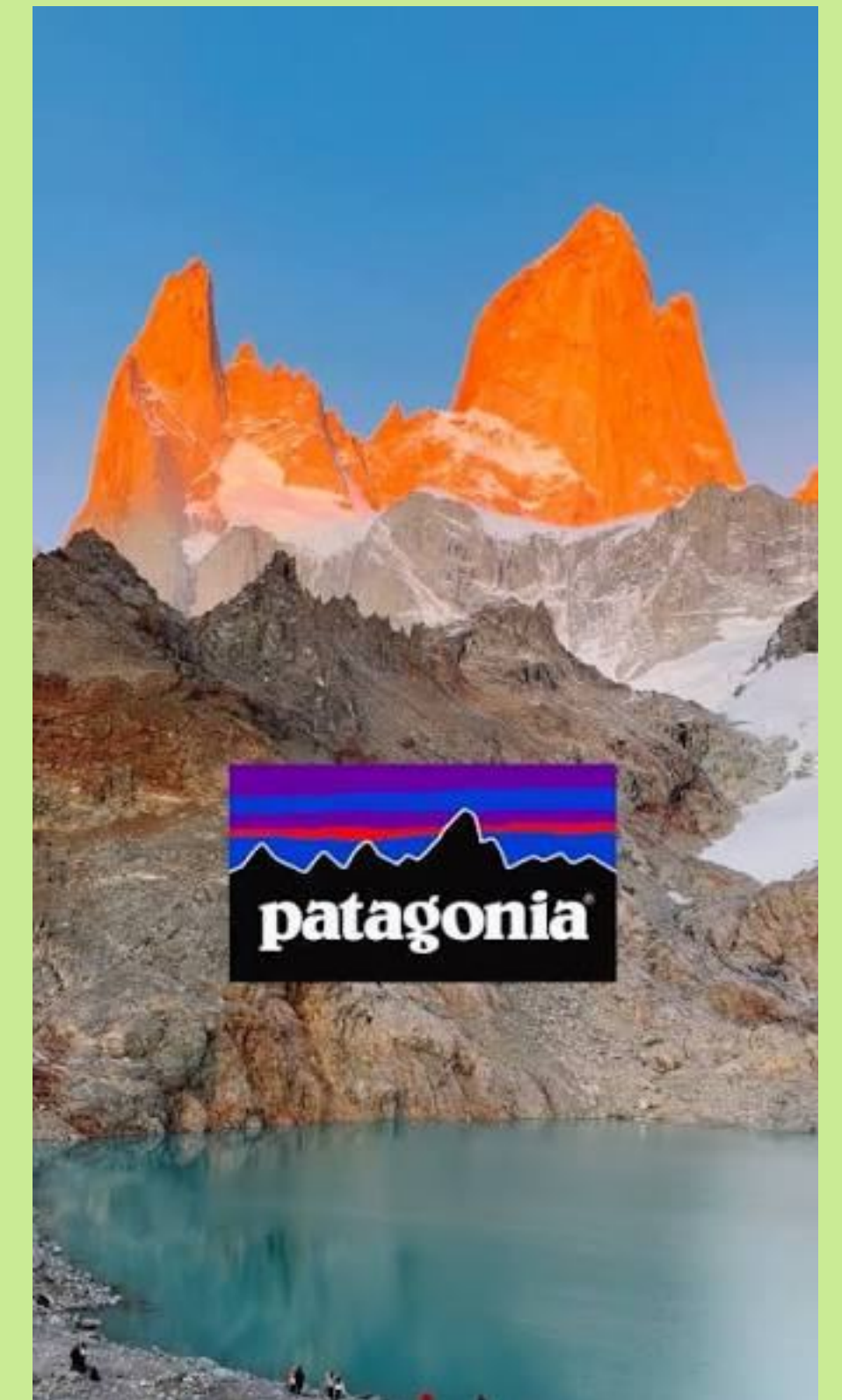
Value to Mastercard

- Attracts eco-conscious customers
- Increases card usage
- Strengthens brand differentiation

Value to Patagonia

- Boosts sales and customer loyalty
- Reinforces sustainability mission
- Reaches Mastercard's customer base

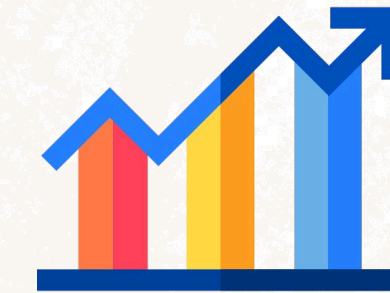
patagonia[®]



Growth Plan and Hacking tactics

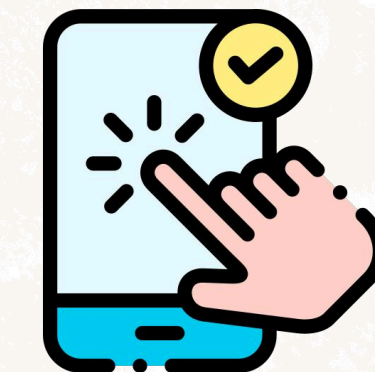
Growth Hypothesis -

“If GreenCard users receive bonus carbon offsets for referring friends, customer sign-ups and engagement will increase among environmentally conscious millennials”



MVP Growth Hack

User Experience (Frontend) - After signing up, users receive a simple referral link in the GreenCard app. When a friend signs up and spends \$100, both users receive bonus carbon offsets displayed in their impact dashboard.



Backend Approach - The experiment would initially use a manual process -

- Referral tracking through unique promo codes
- Manual verification of qualifying purchases
- Simple email notifications instead of a fully automated referral engine.



How it Mimics the Final Solution - The manual behind the scenes will actually feel like a real referral program to users. This allows Mastercard to test customer interest and sharing behaviour quickly without investing in a full referral infrastructure.



A/B Testing Strategy...

Product Overview -

Green Card is a digital-first card designed for environmentally conscious millennials. For every dollar spent, MasterCard purchases carbon offsets, allowing customers to contribute to climate action through everyday spending.

Product Decision to Test -

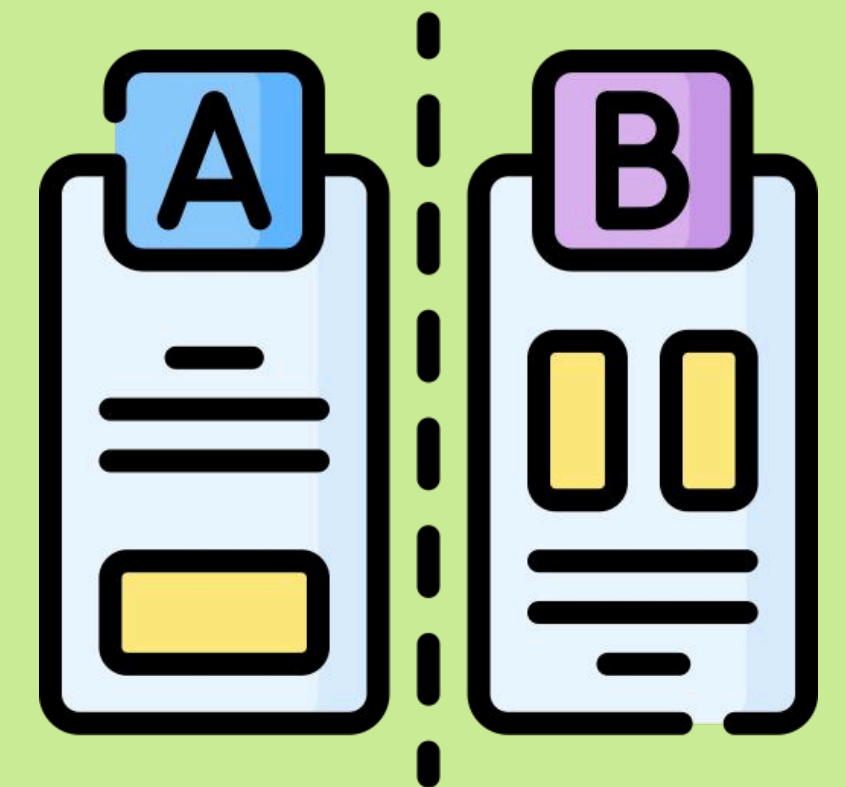
I want to test the primary message on the GreenCard landing page.

Version A - Focus on environmental impact

Version B - Focus on convenience and ease of use

Why this should be tested?

The success of the GreenCard depends on attracting new customers. Rather than assuming sustainability messaging is most effective, an A/B test will compare sustainability- and convenience-focused messages to identify which drives higher sign-ups and conversions.



A/B Testing Strategy...

Hypothesis - Convenience messaging will drive more sign-ups than environmental messaging.

Variant A - Environmental - Fight climate change with every purchase

Variant B - Convenience - Make a difference without changing your routine

Success

- **Metric:** Landing page conversion rate
- **Target:** $\geq 10\%$ higher conversions with statistical significance

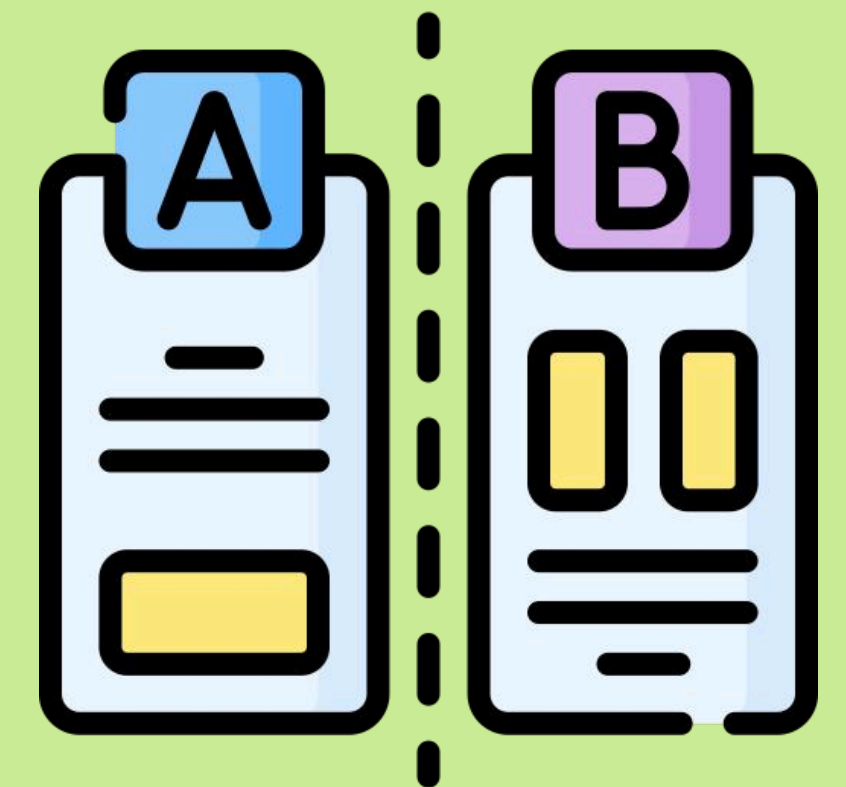
Action

- **B wins:** Use convenience messaging
- **A wins:** Use environmental messaging
- **Tie:** Test a hybrid message

Ethics & Monitoring

- Accurate sustainability claims
- Equal user experience
- Track: Conversion, Bounce Rate, Time on Page, Application Completion

Goal: Maximize sign-ups while maintaining customer trust.



ML Opportunity - ML-Powered Sustainability Insights & Rewards Engine



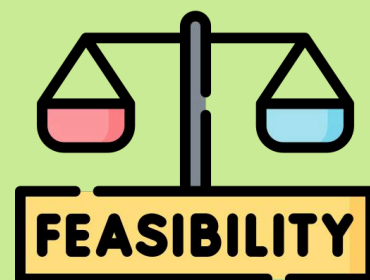
The Feature

- Recommends merchants & spending choices that boost environmental impact
- Outputs: personalized sustainability score, merchant picks, and predicted offers



Value Created

- Users: climate impact without changing lifestyle
- Mastercard: higher transaction volume, engagement, retention



Feasibility

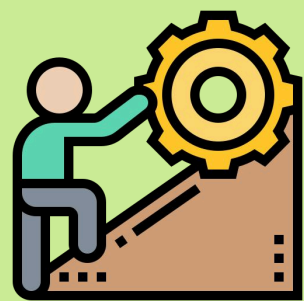
- Built from existing transaction, merchant & redemption data (cleaned, anonymized)
- Requires ongoing monitoring & retraining as behavior shifts



Strategic Fit & Risks

- Data moat: improves with scale via user feedback loops
- Trade-offs: infrastructure/privacy investment; bias risk if data is incomplete

Team and stakeholder alignment plan



Key Challenges

- Scope expansion vs. fixed launch timeline
- Competing priorities across leadership, sales, product, and engineering
- Unclear ownership, disengaged team members, and slow decision-making



Alignment Strategy

- Align stakeholders on the shared goal: validate GreenCard's core value proposition
- Prioritize the MVP: digital enrollment, wallet integration, and carbon-offset tracking
- Use customer insights to guide prioritization and defer non-essential features
- Improve execution with clear ownership, weekly progress reviews, and transparent documentation



Expected Outcomes

- Consensus on MVP scope and launch timeline
- Stronger cross-functional collaboration and accountability
- Reduced delivery risk with an on-time launch
- Validation of the core product before investing in additional features

Embedded Product Strategy

Mastercard can productize an Automated Sustainability Insights Platform that tracks carbon offsets and provides real-time sustainability insights.

- Key features:
 - Automatic carbon offset tracking.
 - Personalized sustainability dashboard.
 - Impact milestones and recommendations.
- Primary users: GreenCard customers.
- Business value: Scalable reporting, improved customer experience, and better insights for internal teams.



Apply the Embedded Development Process -

Automate -

- Automatically calculate carbon offsets from transaction data.
- Eliminate manual reporting with real-time sustainability updates.

Optimize -

- Add personalized insights, sustainability scores, and eco-friendly spending recommendations.

Monetize -

- Offer the platform to banks and fintechs as a sustainability tracking solution.

Current Stage and Challenges -

Stage: Automate.

Challenges: Data accuracy, system integration, transparency, privacy, and regulatory compliance.

Monetization Strategy

Pricing Model -

- Recommendation: **Transaction-based pricing.**
- Partners pay based on transactions processed through the platform.
- Aligns with Mastercard's business model and scales with usage.
- Simpler and more predictable than outcome-based pricing.

Conclusion -

The Automated Sustainability Insights Platform enhances GreenCard by automating carbon tracking, delivering personalized sustainability insights, and creating future revenue opportunities through external partnerships. It strengthens customer engagement while supporting Mastercard's sustainability strategy.



Final summary and strategic recommendations

Final Summary

The Mastercard GreenCard is a sustainability-focused credit card that automatically offsets carbon emissions from everyday purchases. It combines customer-centric design, strategic partnerships, and scalable technology to make climate action simple while strengthening Mastercard's sustainability goals and competitive advantage.

Strategic Recommendations

- Launch a focused MVP with automatic carbon offsetting to validate customer demand before expanding features.
- Build strategic partnerships with carbon offset providers, sustainable merchants, and ESG data partners to strengthen customer value and trust.
- Leverage data and AI to deliver personalized sustainability insights, recommendations, and rewards that increase customer engagement.
- Continuously improve the product using Agile development, customer feedback, and A/B testing to guide future roadmap decisions.

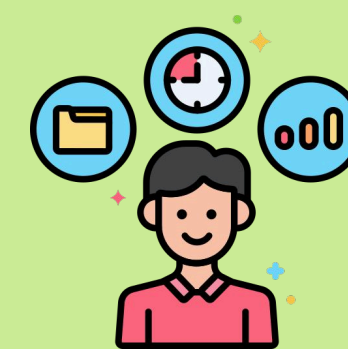


ML Opportunity - ML-Powered Sustainability Insights & Rewards Engine



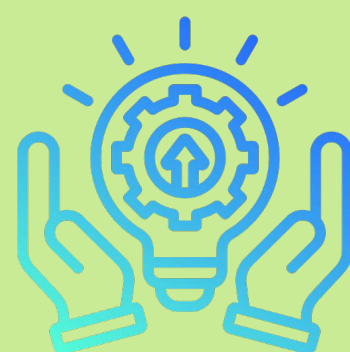
Key Learnings

- Applied the complete product management lifecycle—from customer discovery and design thinking to roadmap planning, go-to-market strategy, growth experimentation, and ML integration.
- Learned the importance of balancing customer needs, business goals, and technical feasibility when making product decisions.
- Gained experience using data, stakeholder collaboration, and iterative development to shape a customer-centric product strategy.



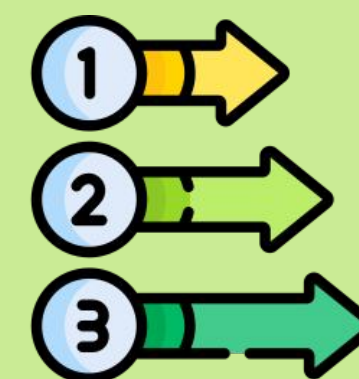
My Strengths as a Product Manager

- Strategic thinking and product vision development.
- Customer-centric problem solving and prioritization.
- Cross-functional collaboration and stakeholder communication.
- Structured decision-making using research and data.



Areas for Future Development

- Deepen knowledge of AI/ML product implementation and analytics.
- Gain more hands-on experience with product metrics, experimentation, and product launches.
- Continue improving executive storytelling and influencing skills for large-scale product initiatives.



Next Steps

- Refine the GreenCard roadmap based on user feedback and MVP results.
- Validate assumptions through pilot launches and A/B testing.
- Explore additional sustainability partnerships and AI-driven personalization to enhance customer engagement.

Thank you.

-Ashi Jain