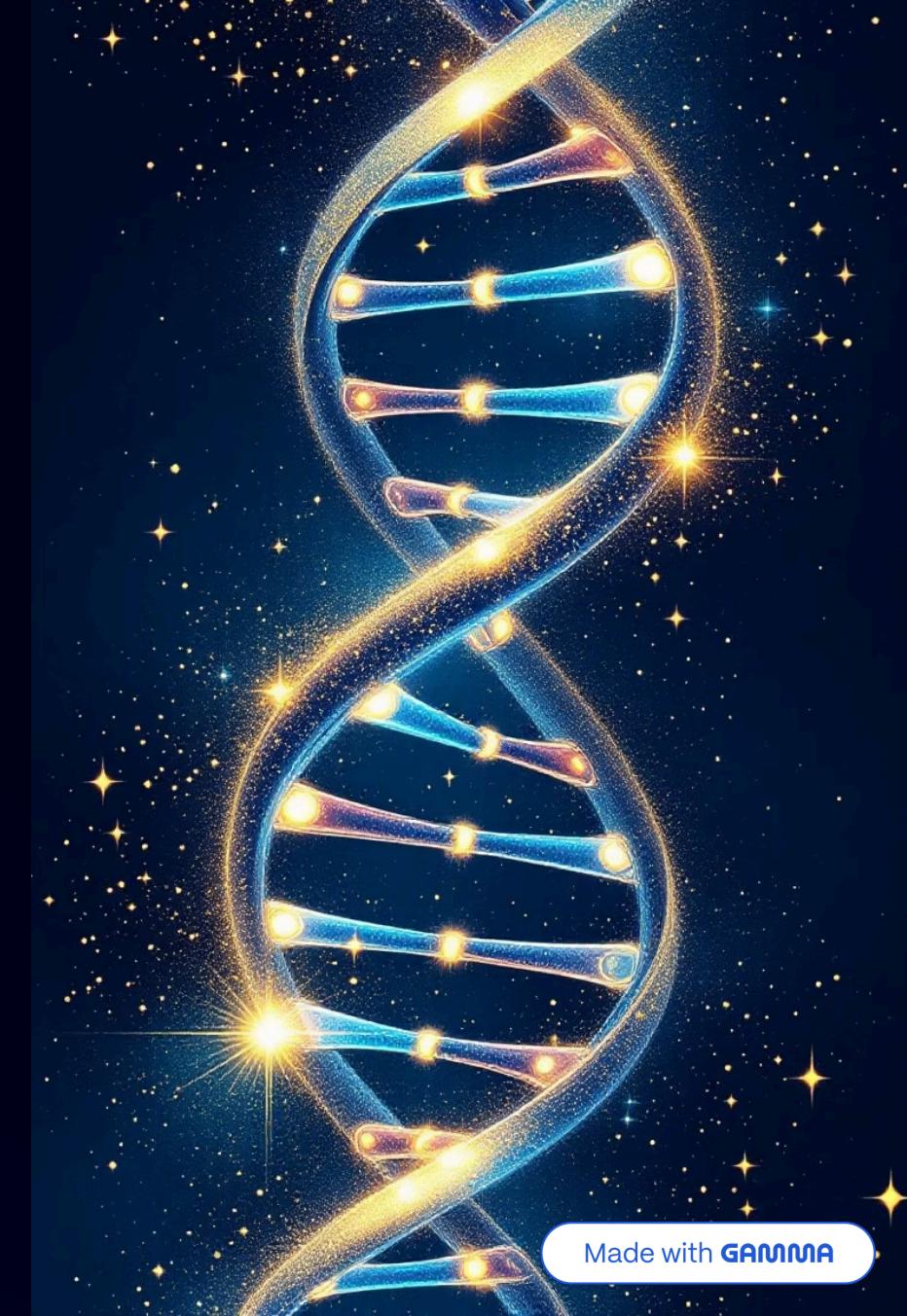


Reengineering 23andMe

Arya Belhe, Prasanna Dixit

Prof M Larche



About 23andMe



23andMe stands at a historic point. Declining sales and fractured public trust forced us to confront hard truths about our trajectory. After our 2025 restructuring and acquisition, we now have the opportunity to rebuild not just trust — but our identity. Our mission is no longer to sell DNA kits. Our mission is to power precision health at scale

"Even the most complex code can fail without trust."

01

2006: The Spark

Founders envisioned making personal genomics accessible to everyone—decoding identity, ancestry, and wellness at scale.

02

Breaking Ground

FDA approvals validated our science. The GSK partnership and Lemonaid Health integration expanded our reach into pharmaceutical research and telehealth.

03

Rising Competition

Ancestry.com and MyHeritage sharpened our focus, pushing us to innovate faster and think bigger about consumer genomics.



Transformation Goal

Shift 23andMe from a D2C DNA company into a health-data intelligence and precision-medicine platform.



Clinical-grade accuracy



Secure, governed,
interoperable data



AI-powered health
insights



Recurring subscription + B2B revenue



Trusted partnerships with hospitals,
insurers, pharma

Forces That Shape Our Path



Political

Regulatory shifts in genomic privacy and precision medicine funding



Economic

Market pressures, cost inflation, and investor expectations



Social

Public trust dynamics and demand for ethical genetics



Technological

AI advancement and data interoperability challenges



Environmental

Sustainability scrutiny of lab operations and energy use



Legal

Evolving compliance landscapes and liability frameworks

Risk Register & Mitigation Strategy



HIPAA / GDPR non-compliance

Strengthen audits, automated PHI redaction



AI model bias

Fairness testing, diverse training data, periodic model reviews



Dependence on single clinical partners, vendors

Diversify vendors, backup integrations



Employee resistance to Agile

Phased adoption, training, change champions



Data migration vulnerabilities

Sandbox testing, rollback plans, checksum validation

Scope of Change



Technology & Infrastructure

- AI-powered pipelines, Workflow automation
- Cloud modernization (HIPAA-compliant)



Data Governance & Security

- Blockchain consent
- Third-party audits



Operating Model

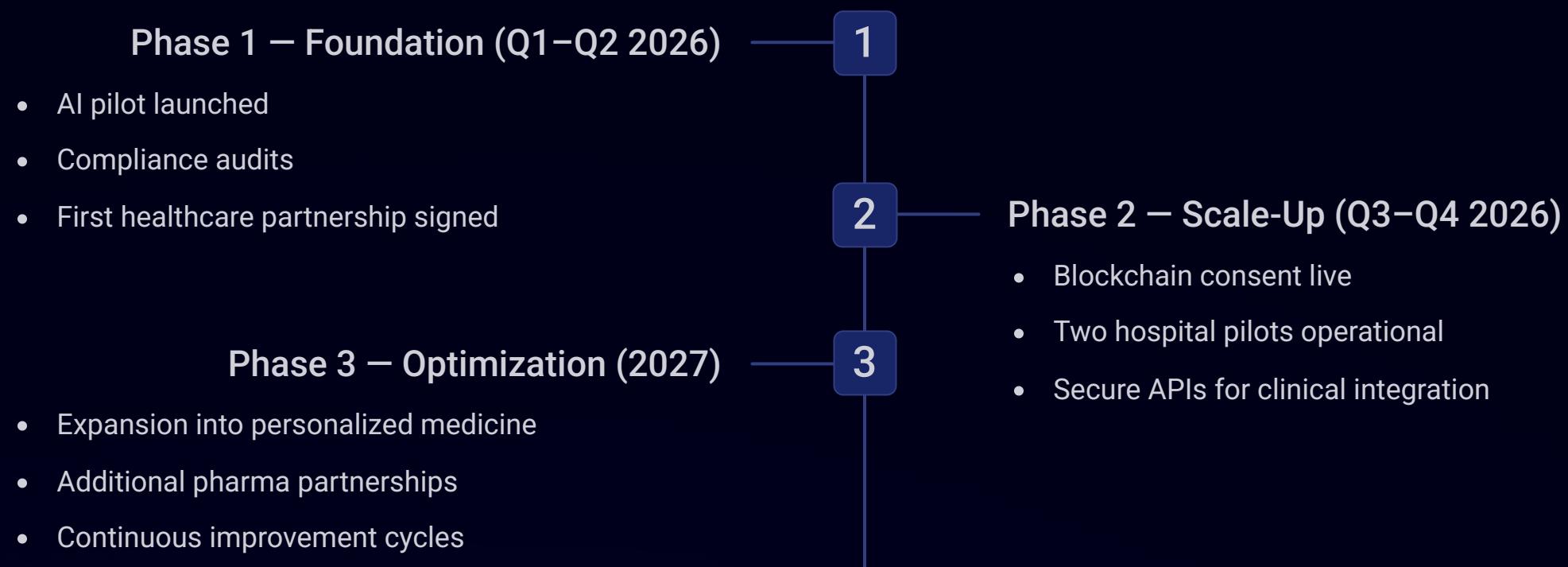
- Cross-functional agile squads
- Innovation & Ethics Office
- TMO governance structure



Ecosystem Partnerships

- Hospitals, insurers, pharma
- Academic institutions
- Cloud & sequencing vendors

Execution Roadmap (2026–2027)



Transformative Approaches for 23andMe

Next-Generation Customer Growth (Gen Z & Gen Alpha)

- Gamified ancestry and wellness journeys
- STEM partnerships and student-tier pricing
- Creator-driven genomics education campaigns

Modern, Youth-Centric Product Experiences

- Social DNA comparisons with friends
- "Genetic Wrapped" annual summaries
- Personalized DNA-powered digital health tips

Global Genealogy Community 2.0

- AI-guided family tree generation
- Opt-in global heritage groups
- Verified DNA-relative connections

Sentiment-Driven NLP Intelligence

- Real-time sentiment dashboard across social + support channels
- Early-warning alerts to identify trust-risk moments

23andMe Real-Time Sentiment Dashboard

AI-powered customer intelligence that transforms how we understand and respond to our community in real-time.



Core Features

- Live social feed ingestion (X, Reddit, TikTok, IG, YouTube)
- Complaint clustering via NLP topic modeling
- Auto-alerts for negative-sentiment spikes



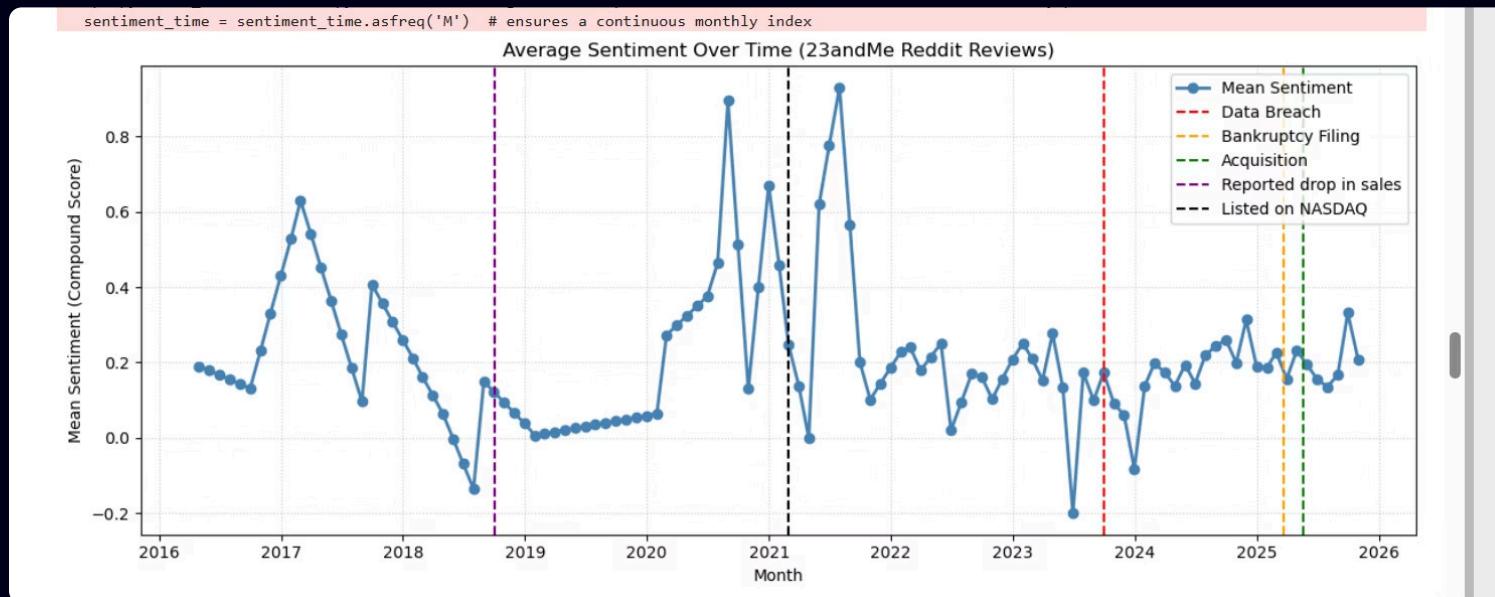
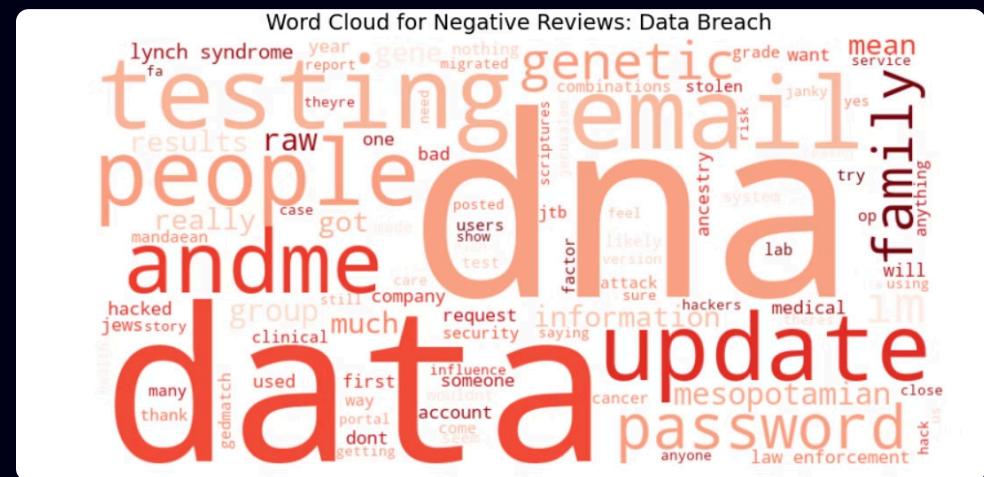
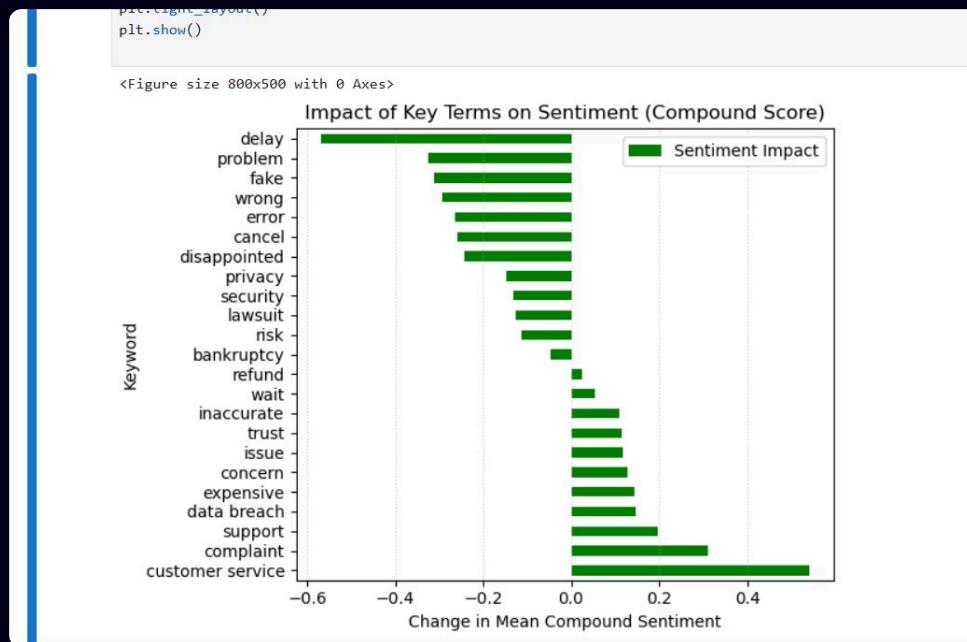
Technical Architecture

- Stream ingestion layer API
- Real-time NLP using transformers (DistilBERT / RoBERTa)
- KPI dashboard in Tableau / Power BI



Business Impact

- Faster crisis response
- Data-driven product decisions
- Customer trust recovery
- Cross-team alignment (marketing + ops + CX)



Dashboard Preview: Real-Time Intelligence

Netan Meets

Analytics

Dashboard

Reputation

Alerts

Alerting Times

Pensions

Alerts

Monitoring Notifications

Key

Built this dashboard by Felipe Fernandes

101 Overall Rate

17,678 New visitors (last 30d)

25,04 New visitors (last 30d)

Crisis Response

64.8% Received

19.3% Published

1.7% Pending

3.2% Rejected

86% Response rate

650.0% Response rate

77% Response rate

Alert

Surveillance

67.6% Search Drive

Alerts

88.1% Total rate

82% Click rate

6,73.99 Total value

Open Issues

Surveillance

Click & Response Metrics

Key Metrics

Overall demand

Legend: Easy, Simple, Medium, Hard

AR Ancestry Exploration

A next-gen AR experience that lets users walk through their ancestry, explore migration stories, and interact with their heritage in 3D. Designed to engage Gen Z/Alpha with identity, culture, and immersive tech.



3D Migration Map

Animated AR map right on the floor/table. Visualizes haplogroup movements & regional DNA paths.



Cultural Snapshots

Tap regions to reveal traditional clothing, foods, scripts, music. Adds historical context to genetic percentages.



Timeline Mode

Swipe through time to see trait evolution & major ancestral events. DNA % changes across generations.



Premium Monetization

Full AR history, "deep lineage," AI ancestor reconstructions. Museum/school partnerships & sponsored cultural content.



Technical Stack

ARKit/ARCore + 3D cultural assets. AI for narrative gap-filling & real-time rendering.



Strategic Value

Differentiates 23andMe from all competitors. Rebuilds trust, boosts engagement, and supports subscription growth.



Collaborations



Performance Partnerships

Nike / Garmin collabs for DNA-driven performance dashboards



Cultural & Language Partnerships

Duolingo ancestry-based language learning pathways



Academic & STEM Collaborations

University AI-powered classroom ancestry research programs



Wearable Ecosystem

Continuous import of heart rate, HRV, sleep cycles, activity rings, step cadence, and temperature trends from wearables like Apple or Fitbit, directly into the DNA-AI health engine.



Precision Health

An AI-powered DNA counselor that delivers preventive health nudges, interprets fertility–metabolism–mental health genotypes with ML precision, and provides private, personalized guidance anytime.



Genotype-Based Nutrition Engine

ML maps SNPs to macros, micronutrient gaps, and food sensitivities



Supplement Planner

identifies gene-related deficiencies and builds adaptive supplement stacks



Pharma-genomics Matching

ML models recommending medication types/dosages based on metabolic genotypes



Exercise Response Modeling

ML predicts endurance vs. power bias, injury predisposition, and recovery timelines

23andMe 2.0

By 2030, 23andMe will stand as a **global precision-health ecosystem**—a bridge between consumer genomics and clinical care that makes genetic intelligence not just accessible, but empowering.



Partnership Architecture



Blockchain Consent



AI-Driven Operational Efficiency



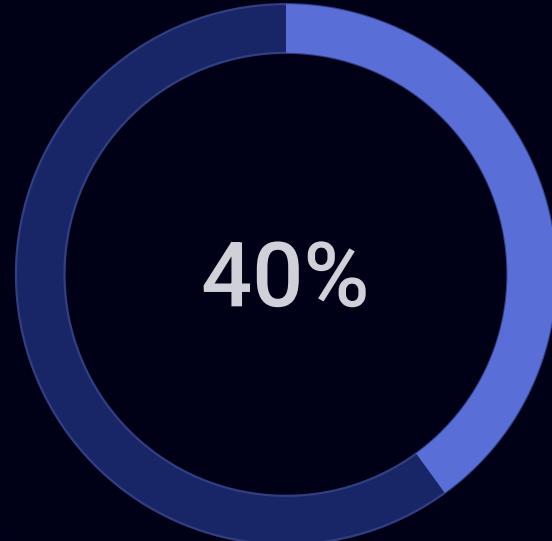
Personalized digital health support



Connected Global Community



Real-Time Customer Intelligence



Revenue from B2B health data by 2030

Thank You

