



Powering the future of shopping for RetailNext

Rebecca Smith - OpenAI Account Director
Joel Solomons - OpenAI Solutions Engineer

August 2025



RetailNext is a global leader in retail

- Operating in over 32 countries and serving more than 560 retail brands, including major names like Calvin Klein, Burberry, and Nike.
- An estimated annual revenue of \$12 billion USD.
- Online presence continues to grow rapidly, accounting for 35% of total sales in 2024.

Strategic priorities

- Actively scaling its international footprint to capture new market opportunities.
- Enhancing the customer experience to truly understand and cater to individual customer preferences.



Challenges

Customers have recently been leaving poor reviews due to an inability to find updated styles or specific items in stores for upcoming events.

- **2023:** 1200 reviews; average 4.2 stars
- **2024:** 1043 reviews; average 2.8 stars

This decrease in customer satisfaction has led to a decline in overall sales, especially in-store:

- Online YOY: **-15%**
- In-store YOY: **-23%**

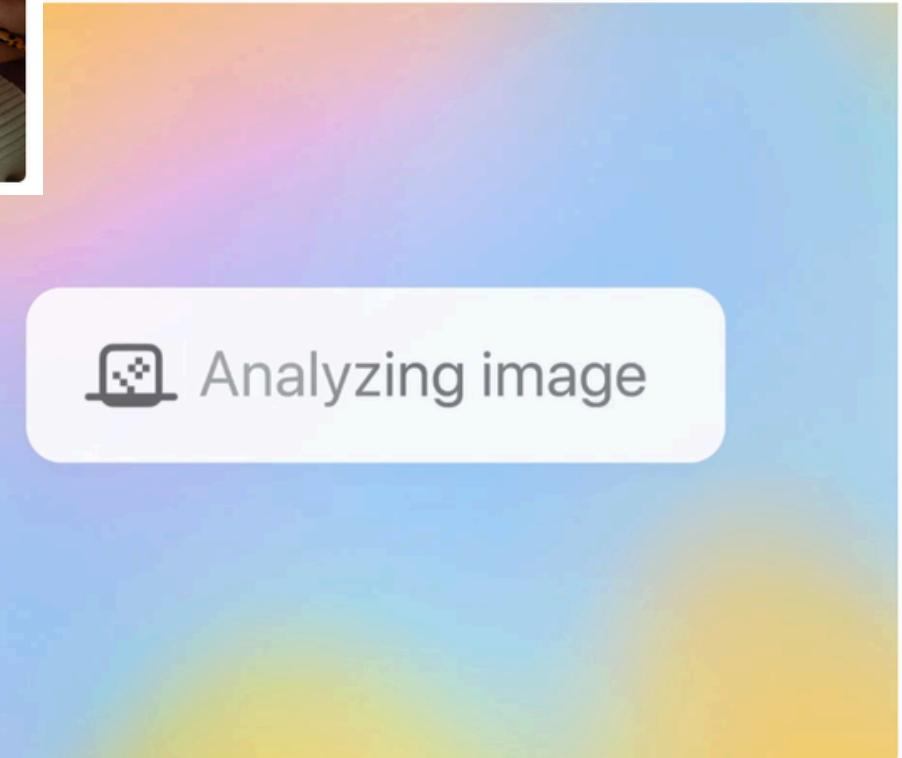
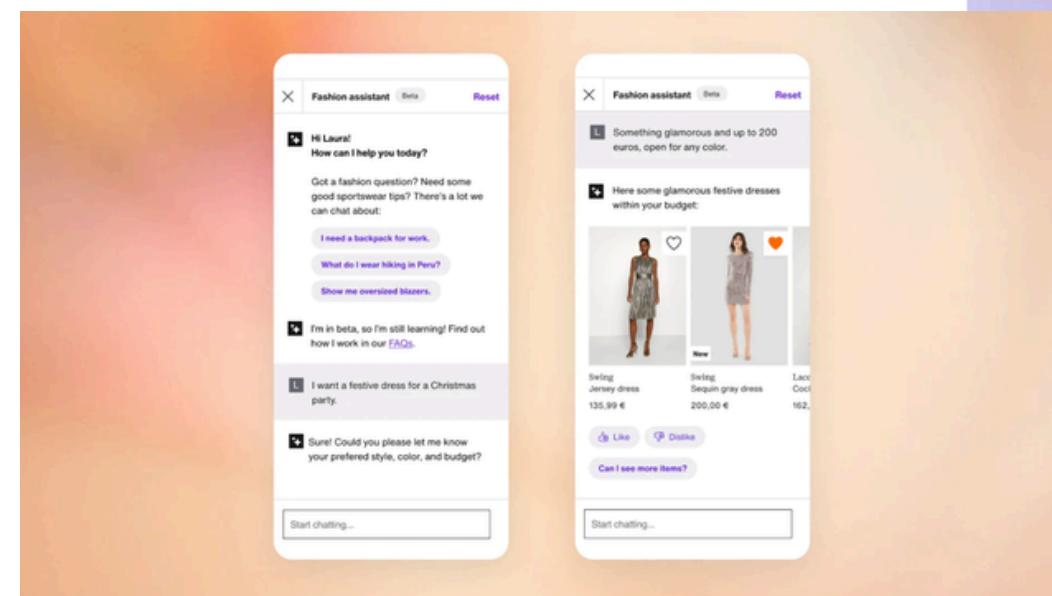
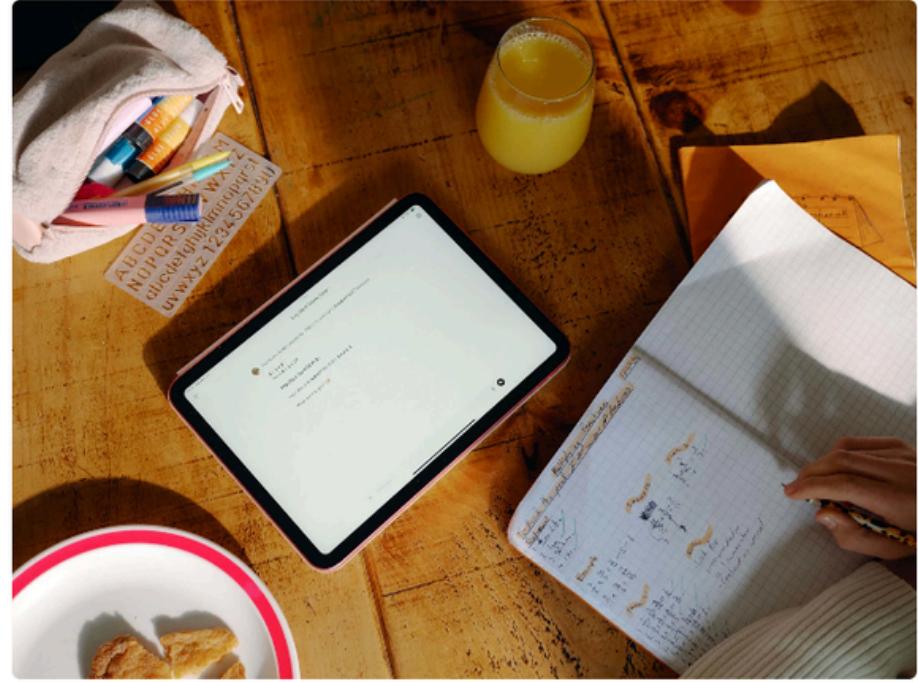
AI can power personalised shopping experiences and recommendations for customers, transforming clothing matching from a labour-intensive, limited process to a personalised and scalable solution.



OpenAI

To ensure that artificial general intelligence benefits all of humanity.

OpenAI's platform is a powerful, flexible AI development stack that enables enterprises to build natural language, vision, and multimodal applications at scale. It combines state-of-the-art models, APIs, and tooling into a secure, production-ready environment.



OpenAI

✓ We provide customised AI-powered solutions for customer service, knowledge management, recommendation engines, and more – with the flexibility to optimise model performance for your use case:

- We offer **a range of Large Language Models (LLMs)** such as GPT-5, GPT-5-mini which can be **easily tailored depending on your unique needs and budget.**
- Our solution is able to understand and generate human-like responses across text, image, and audio – **ideal for retail situations like personalisation, style matching, product discovery and more**

✓ We're **enterprise** ready

- Scalable, cost effective & performant, even with lightweight models like GPT-5 mini.
- Flexible deployment: Hosted by OpenAI, via Azure OpenAI Service, or private endpoints.
- Security & compliance: SOC 2 Type II, data privacy safeguards, and tenant data isolation.
- Dedicated Support Services for enterprise customers



Solution

Clothing Matchmaker

Combining the efficiency of GPT-5-mini with the intelligence of Retrieval-Augmented Generation (RAG) to deliver fast, accurate, and personalised clothing recommendations – enhancing the shopping experience and increasing customer satisfaction.

Personalised Shopping Assistants

Offer personalised outfit recommendations to customers by better understanding user intent and relevant clothing items

Virtual Wardrobe Applications

Users can upload images of their own clothing items to create a virtual wardrobe and receive suggestions for new items that match their existing pieces

Fashion Design and Styling

Fashion designers and stylists can use this tool to experiment with different combinations and styles, streamlining the creative process.

All powered with OpenAI technologies.

- **GPT-5 mini** enables real-time image and text analysis to extract key visual features such as color, style, and garment type from user-uploaded clothing items (contextual understanding)
- **text-embedding-3-large** easily convert text into vector representations for semantic search and more.
- **RAG architecture** enriches the system by retrieving contextually relevant products from a curated fashion knowledge base, grounding recommendations in up-to-date, domain-specific data.
- A **custom fashion-matching algorithm** evaluates these attributes to identify complementary styles, ensuring aesthetic coherence and color harmony.



Technologies and Business Value

Components	OpenAI Technology	Technical Overview	Business Value
Multimodal feature extraction (Image Analysis)	 gpt-5-mini	Analyzes uploaded clothing images and text to extract visual and semantic features (color, type, style).	Cost effective solution that enables real-time, nuanced product understanding for personalised, image-driven recommendations.
Embeddings	text-embedding-3-large	Converts document or products into vectors (embeddings) for semantic product search	Transforms product databases or knowledge bases into semantically searchable embeddings, allowing for more accurate and context-aware searches.
Semantic Search & Retrieval	Custom Cosine Similarity Algorithm + VectorDB	Understands intent behind search and ability to find similar items based on embeddings	Powers meaning-based search and style-matching, improving relevance and customer engagement.
Retrieval-Augmented Generation (RAG)	 gpt-5-mini + VectorDB	Combined generated responses with retrieved knowledge grounding output in accurate, domain specific data	Ensures contextually relevant and brand-aligned responses; reduces hallucination and improves accuracy.
Guardrails	 gpt-5-mini	Self-Correction (refine results); Accuracy; Consistency; Safety; Contextual Relevant	Improves trust and conversion by filtering out irrelevant, unsafe, or mismatched outputs.

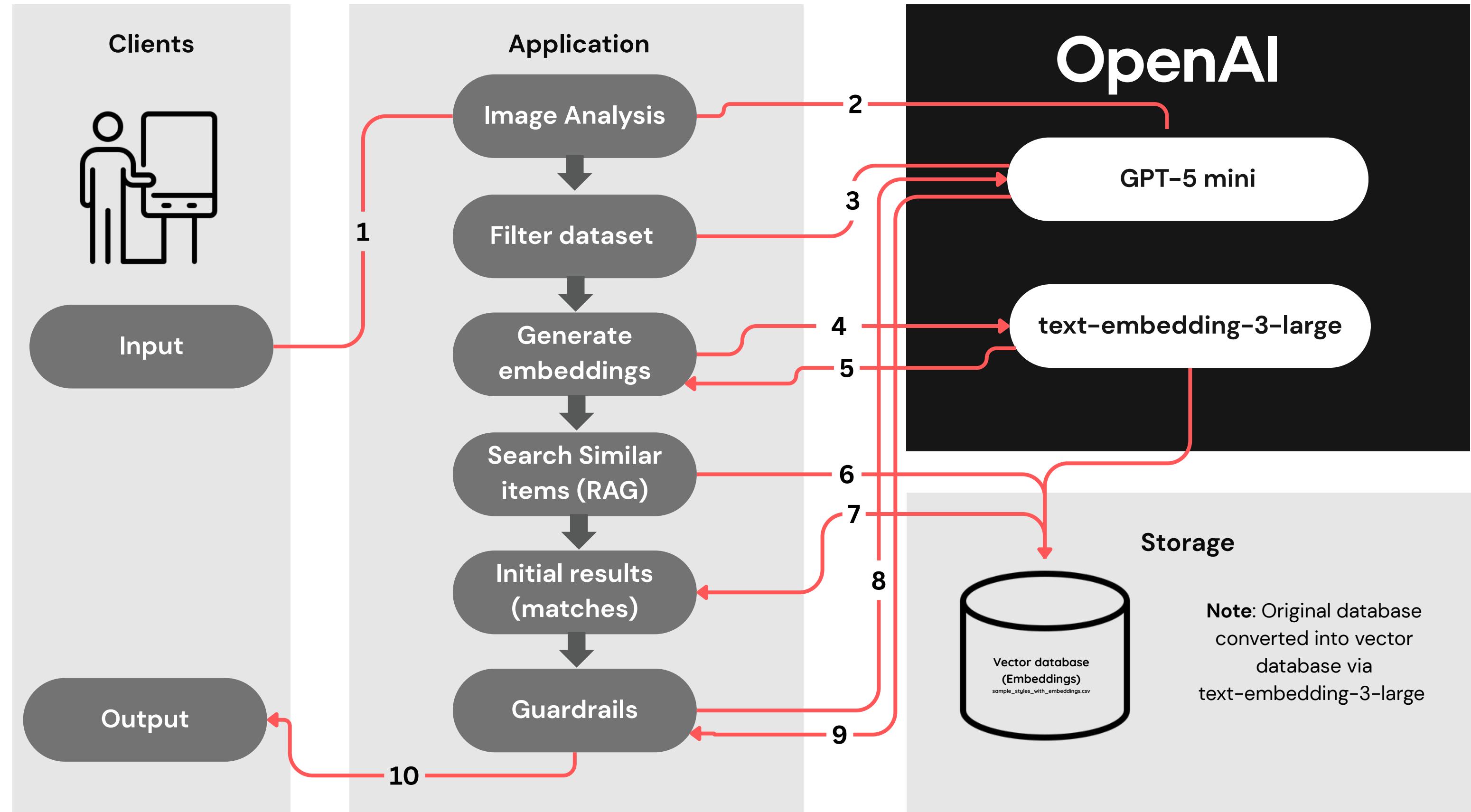


Workflow Steps

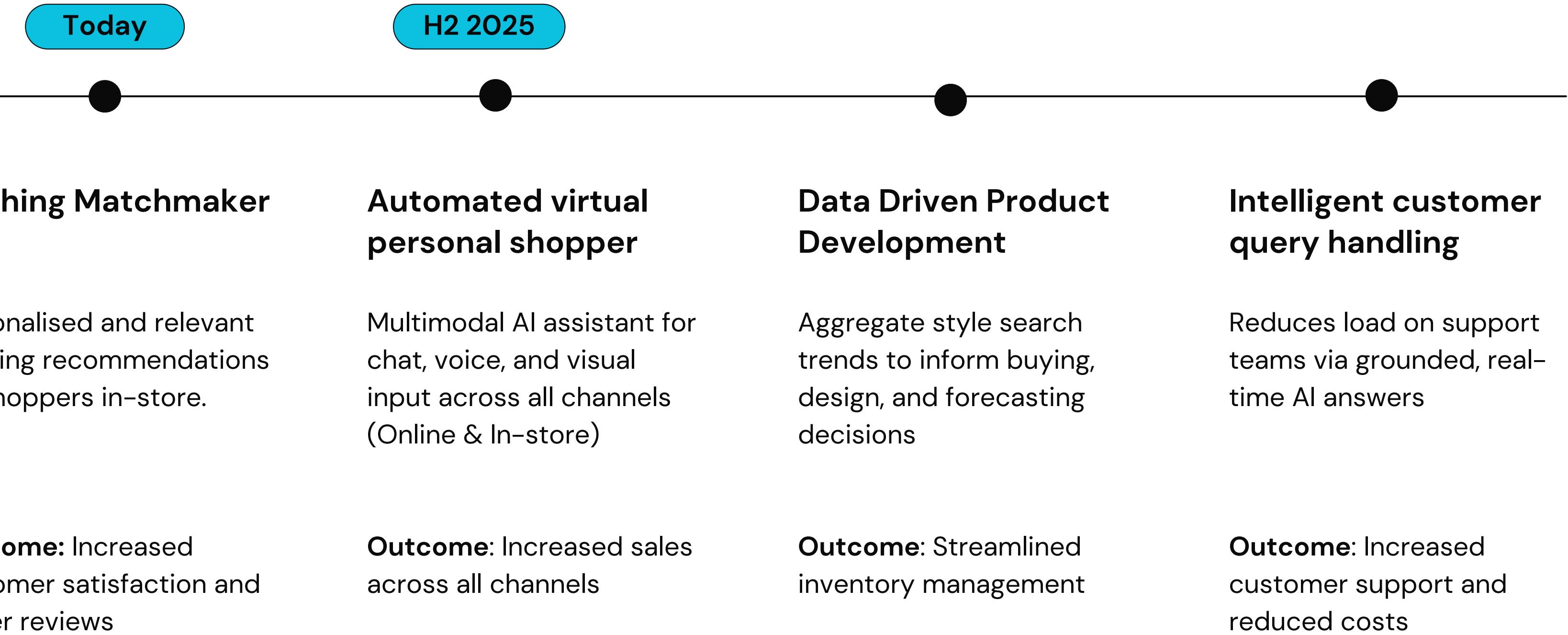
STEP	User input	Image Analysis	Create Embeddings	Semantic Retrieval	Initial Results & Guardrails	Curated Output
TECHNOLOGY	N/A	GPT-5 mini	text-embedding-3-large	Custom cosine similarity (RAG)	GPT-5 mini	HTML
ACTION	User provides input (text, image or both for outfits)	Analyses input using NLP and image recognition. Extracts detailed features/descriptions from image	Textual descriptions are converted into embeddings	Search similar items and matches in vector database	Initial items are identified and sent back to the model and asked for evaluation (yes/no)	If yes, refined and curated items are displayed to user with reasoning



Solution Architecture



Roadmap



Other retail customers



ESTĒE LAUDER



Q&A



Thank you

rebecca.smith@openai.com

jsolomons@openai.com

June 2025

