

Enhancing product innovation: How AI-driven home-use testing refines sensory development

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Introduction

Jules Destrooper aimed to **innovate its product line** with new sandwich waffles (chocolate and vanilla fillings) in response to shifting consumer preferences and competitor offerings. To ensure market readiness, a **multi-phase product development strategy** was executed, guided by Haystack Consulting.



Methodology

1 Consumer product testing

Measure consumer appeal, brand fit, and pricing potential

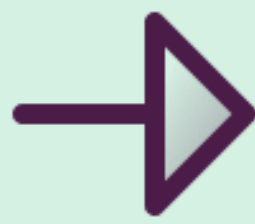
- **Four iterative test rounds**
- Sequential monadic **central-location testing**
- Evaluated:
 - Liking (overall, flavor, texture)
 - Brand fit, occasion fit
 - Pricing via Gabor-Granger



2 Sensory mapping

Understand how JDS's textures compare to competitors

- **Multivariate sensory mapping:** products evaluated simultaneously, placed based on perceived similarity
- Evaluated by **trained panelists**
- Focus: mouthfeel, texture, sensory distinctiveness



3 Try & Tell – AI-powered home-use testing

Validate the total product experience in real-world settings

- **Real-world validation** via structured tasks + video-based feedback
- Emphasis on **authentic, emotion-driven insights**

Try & Tell
Agile home-use testing, done differently

Key findings

- **From concept to market:** Jules Destrooper successfully developed a new sandwich waffle, with the vanilla variant emerging as the top performer now set for launch in the Belgian market.
- **Sensory mapping fueled product precision:** Expert sensory mapping revealed key texture cues (e.g., creaminess) that guided refinements and ensured alignment with JDS's premium positioning.
- **AI platform as a breakthrough tool:** The Try & Tell home-use testing platform introduced a new layer of realism. By capturing spontaneous reactions in actual consumption moments, it proved invaluable in guiding final R&D decisions.

Conclusions

By integrating quantitative testing, expert sensory mapping, and AI-powered home-use evaluation, we **created a completely new product, now ready for market introduction in Belgium.**

This approach combined sensory rigor with real-life consumer insight, ensuring the product met technical standards and truly resonated with its audience.

Key take-aways:

- **End-to-End Innovation:** The layered methodology enabled the full creation, not just optimization, of a new consumer product.
- **AI advantage:** The Try & Tell platform delivered uniquely rich, contextual insights that traditional research would miss, making it a powerful addition to modern product development.
- **Agile & aligned:** Real-time feedback loops across disciplines (sensory, consumer, behavioral) ensured a faster path to launch, with high confidence in product-market fit.
- **Local success:** This process culminated in a differentiated product built for Belgian consumers, with strategic launch guidance grounded in strong data.

