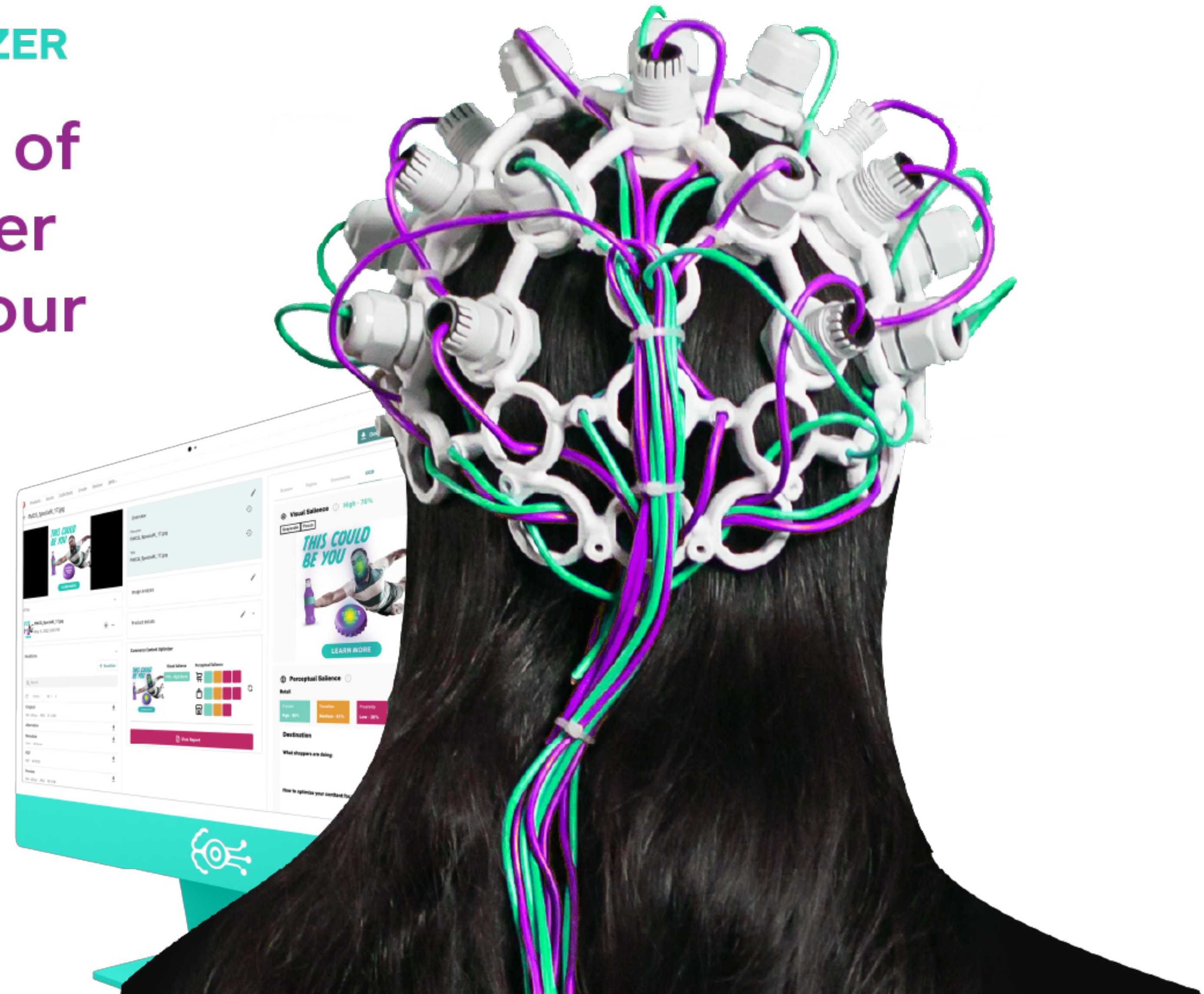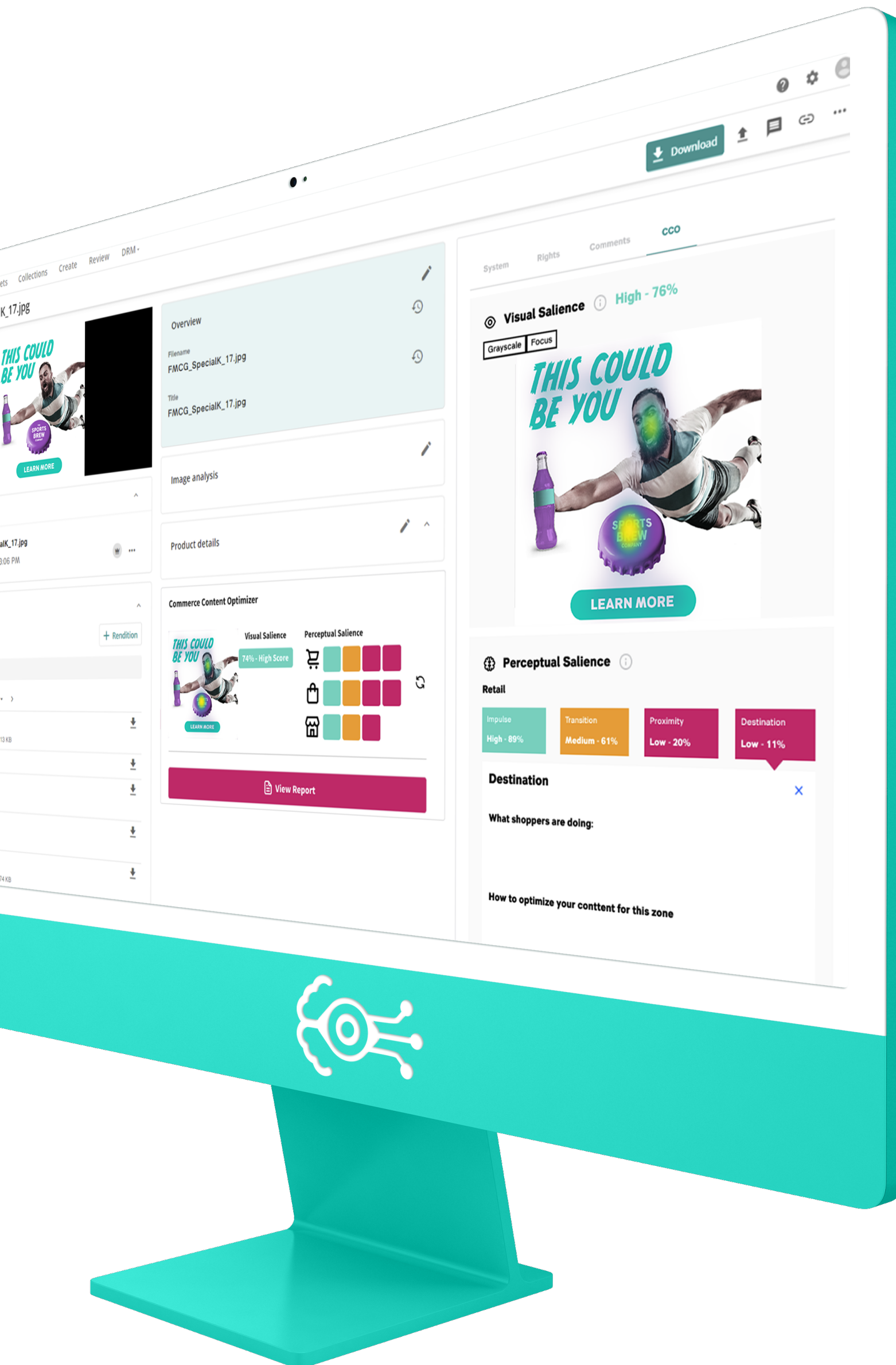COMMERCE CONTENT OPTIMIZER

# How we leverage years of neuro-tracked consumer behavior to increase your assets' conversion

Commerce Content Optimizer uses a neuroscience-based AI to evaluate your assets, predict how performant they will be, and guide you towards optimizing them.

As a market-focused application of Computer Vision, this tool results in the optimization of:

**Conversion of asset viewership to sales** ✓

**Your asset's performance in not only attracting attention, but holding it** ✓

**Your asset's impact on future shopper action** ✓
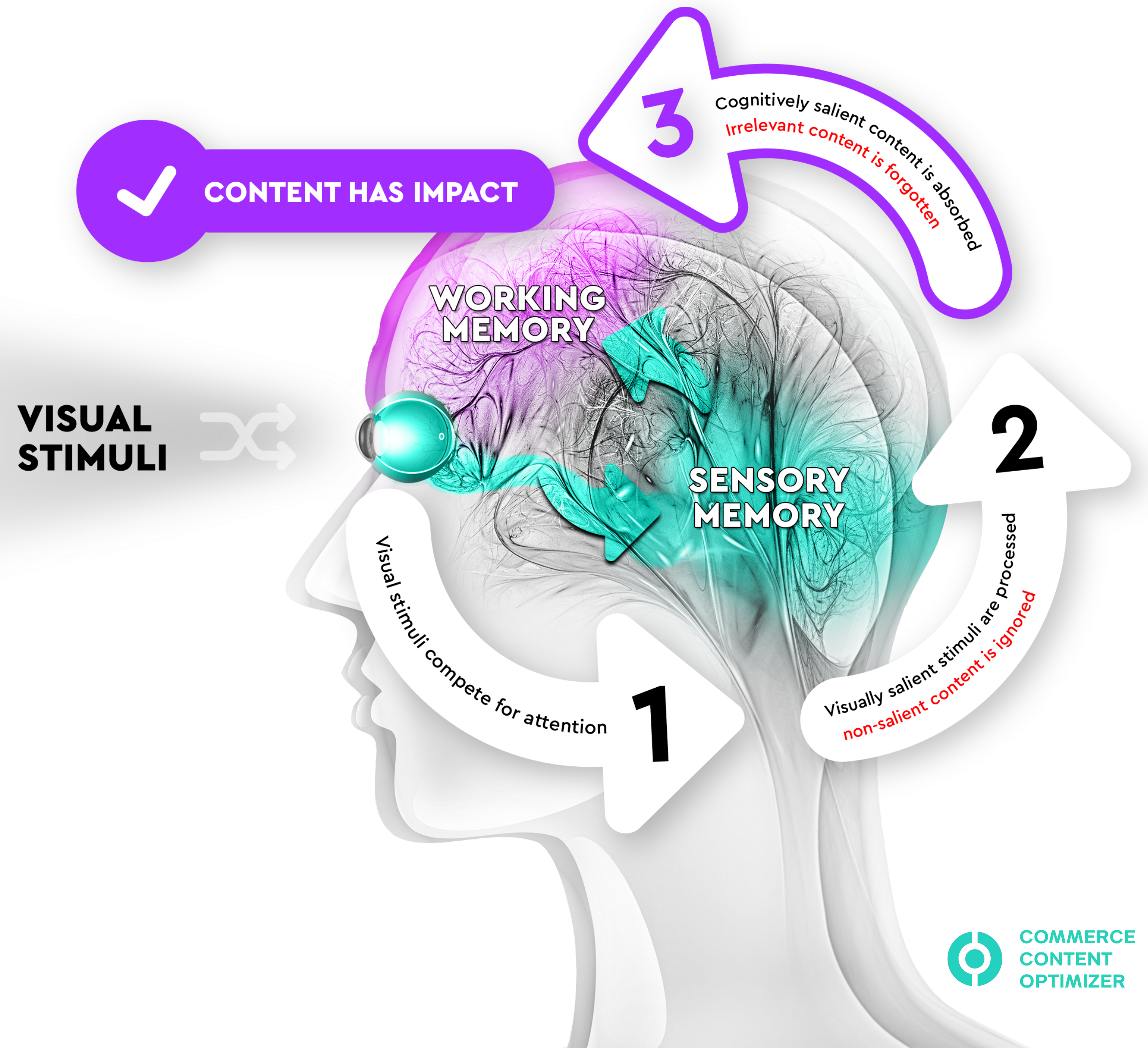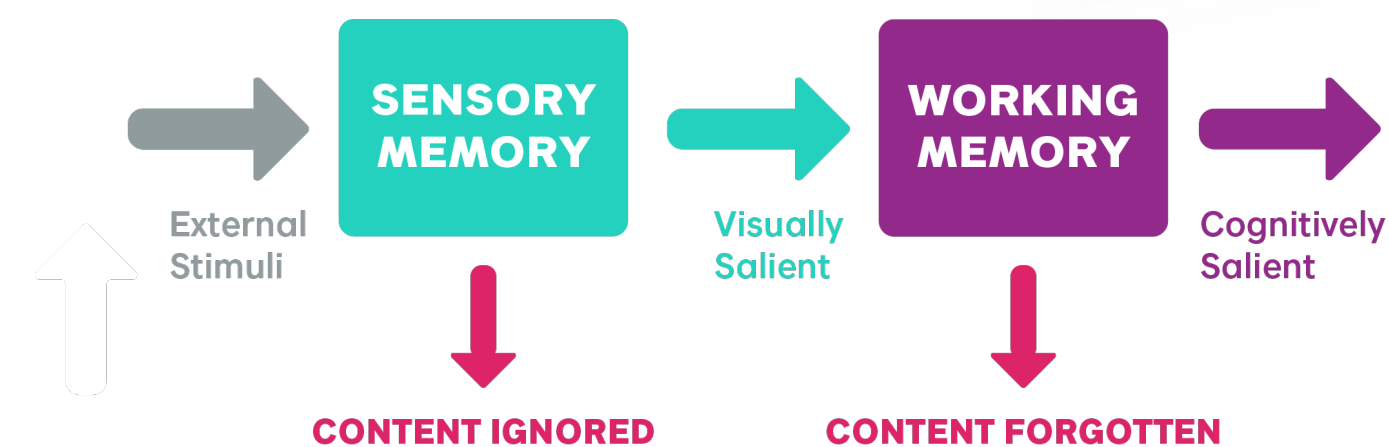
COMMERCE CONTENT OPTIMIZER

That is to say that we have devised an optimization system based on neuroscience and real market data... not design rules and aesthetics.

To understand how we built a shopper-centric Computer Vision AI, we need to illustrate how human action is driven by the environment.

# THE VISUAL INFORMATION PROCESSING MODEL

As our systems are bombarded with external stimuli, **sensory memory** helps us filter through the noise, keeping an impression of only the most important visual stimuli which are handed off to our **working memory**, itself capable of juggling only a limited amount of information at any one time.

External Stimuli → **SENSORY MEMORY** → Visually Salient → **WORKING MEMORY** → Cognitively Salient

↓ CONTENT IGNORED

↓ CONTENT FORGOTTEN

CONTENT HAS IMPACT

**3** Cognitively salient content is absorbed
*Irrelevant content is forgotten*

WORKING MEMORY

VISUAL STIMULI

SENSORY MEMORY

Visual stimuli compete for attention **1**

**2** Visually salient stimuli are processed
*non-salient content is ignored*
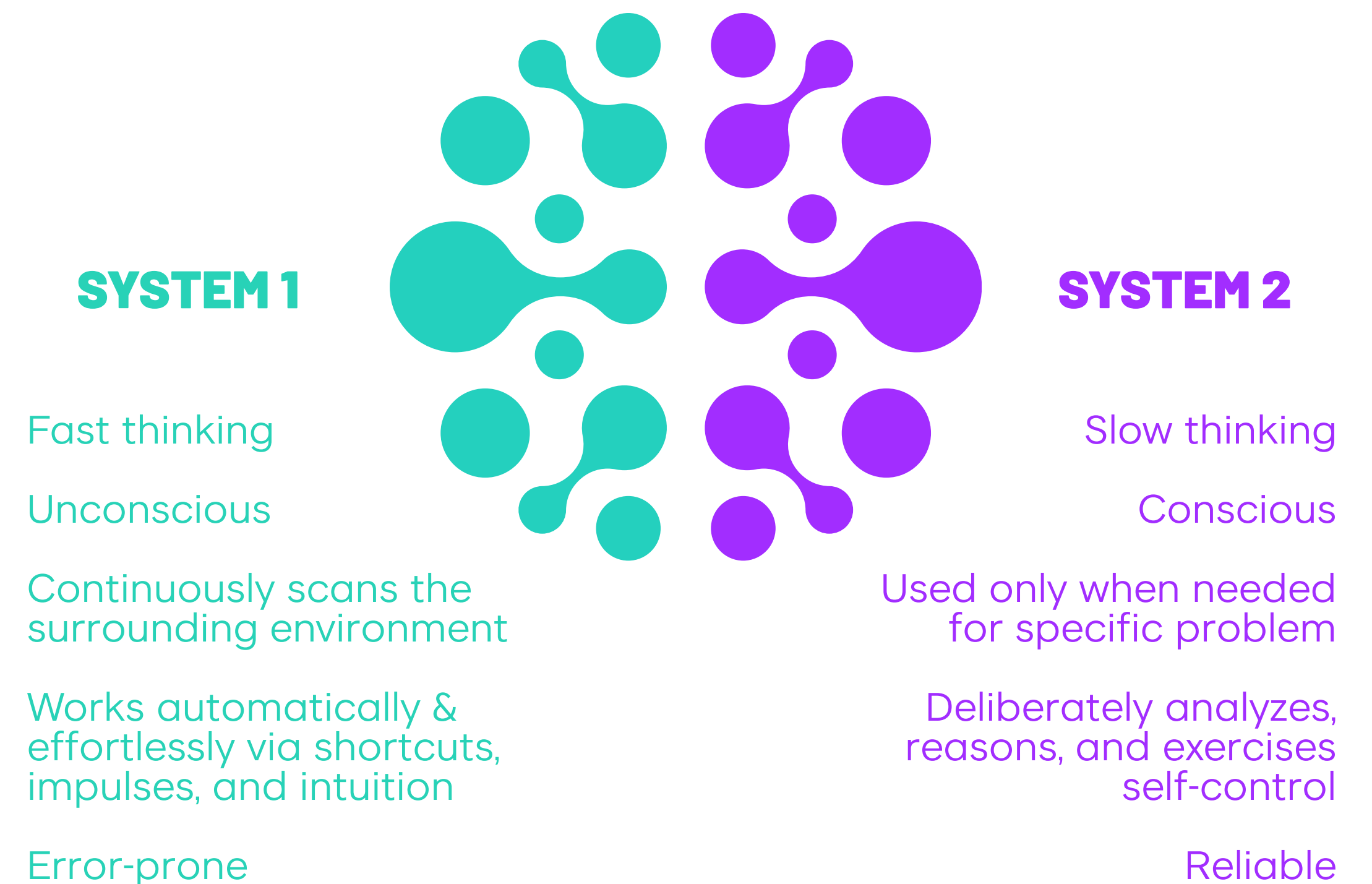
COMMERCE CONTENT OPTIMIZER

Take your daily morning commute. When rushing to work, sensory memory helps you focus on other drivers and environmental factors that could impede your mission. You are less likely to notice the juicy burger on the billboard than if you were stuck in morning traffic with nothing else to distract you.

**Sensory memory is the intuitive, automatic part of our brain. It thinks fast, deferring to working memory if the stimuli warrants being cognitively processed**

Were you passively stuck in traffic, your sensory memory would allow that burger ad to filter through to working memory where it would either be processed or discarded.

**Working memory is slow, cognitive, and calculating.**

Since an appetite for lunch is a distant thought, the information on that billboard has a low likelihood of being relevant in the moment and more likely to be discarded in favor of more imminent missions: grabbing coffee on the go for example, or the requirements of a meeting you're due to have.

## SYSTEM 1

Fast thinking

Unconscious

Continuously scans the surrounding environment

Works automatically & effortlessly via shortcuts, impulses, and intuition

Error-prone

## SYSTEM 2

Slow thinking

Conscious

Used only when needed for specific problem

Deliberately analyzes, reasons, and exercises self-control

Reliable

COMMERCE
CONTENT
OPTIMIZER

This is cognitive load and for your target shopper audience, prioritizing that information efficiently is central to making a decision. The bad news is that your content competes in a congested space where overcoming sensory overload is just the first hurdle in getting your message across.

Cutting through the clutter means being noticed AND absorbed. The good news is that this process is hackable in as much as it hinges on predictable human behavior.

This is where Commerce Content Optimizer comes in. Built on years of neurological research into how people's brain scans are impacted by different stimuli while they were in the middle of a task.

By tracking eye movement as well as neurological activity, study after study found that the most salient information would differ depending on their mission at the time: from shopping online to browsing their social media feed or viewing TV commercials.

That is to say that context matters, and it impacts not only what is noticed in the crowd, but what is nudged in mind such that it impacts a future shopper decision.



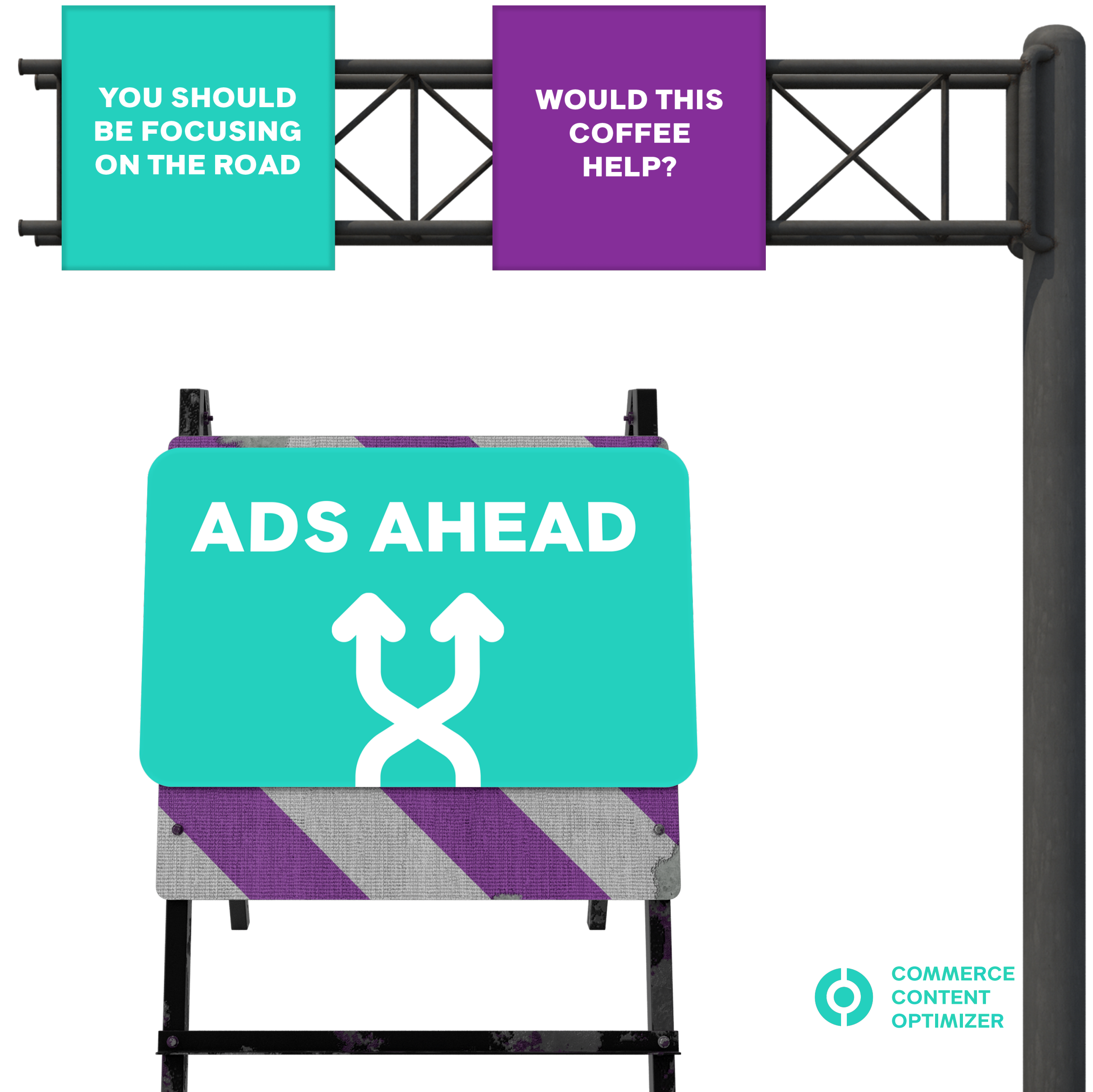COGNITIVE BIASES DRIVE SHOPPER DECISIONS
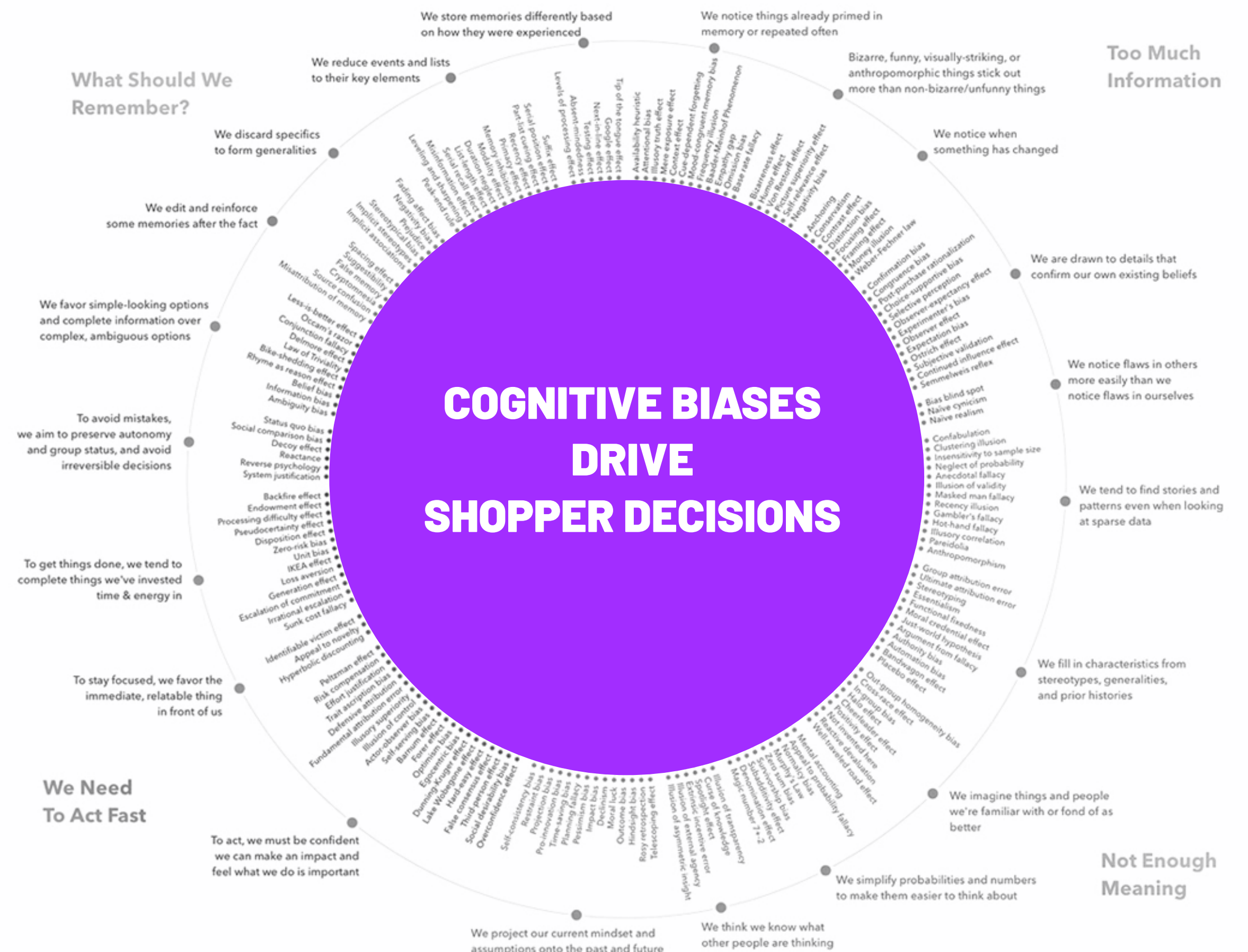
For shopper marketers, neurological advancement validates certain suppositions: that **campaign messaging needs to be tailored for a full shopper journey, leveraging shopper mindsets to increase conversion rates**.

In the previous rush hour commute example, a person viewing a burger billboard may be nudged to later consider that food choice when lunch time arrives if it remains fresh in their mind.

However, unless the billboard also created a memorable connection between the brand and the offering, a likely outcome would be for the target audience to default to their familiar or nearest competing brand of burgers.
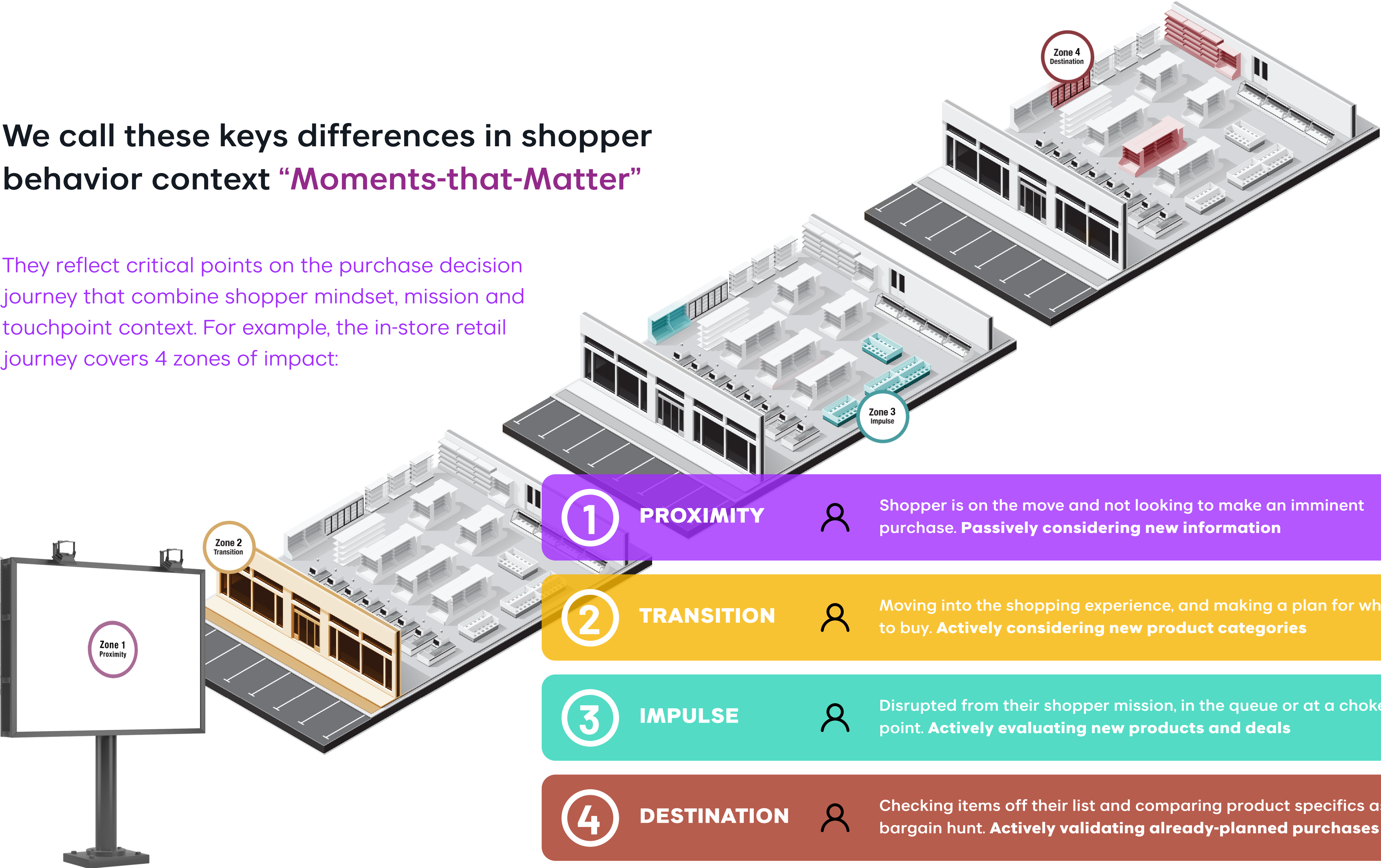
On the other hand, if that same target audience were approaching a food court around lunchtime, an OOH asset has the highest relevance to them when it includes a promotional offer.

By pushing bargain hunting drivers at a moment when the consumer's cognitive load is juggling priorities, their decision defaults to a load-saving shortcut.

YOU SHOULD BE FOCUSING ON THE ROAD

WOULD THIS COFFEE HELP?

ADS AHEAD

COMMERCE CONTENT OPTIMIZER

# We call these keys differences in shopper behavior context "Moments-that-Matter"
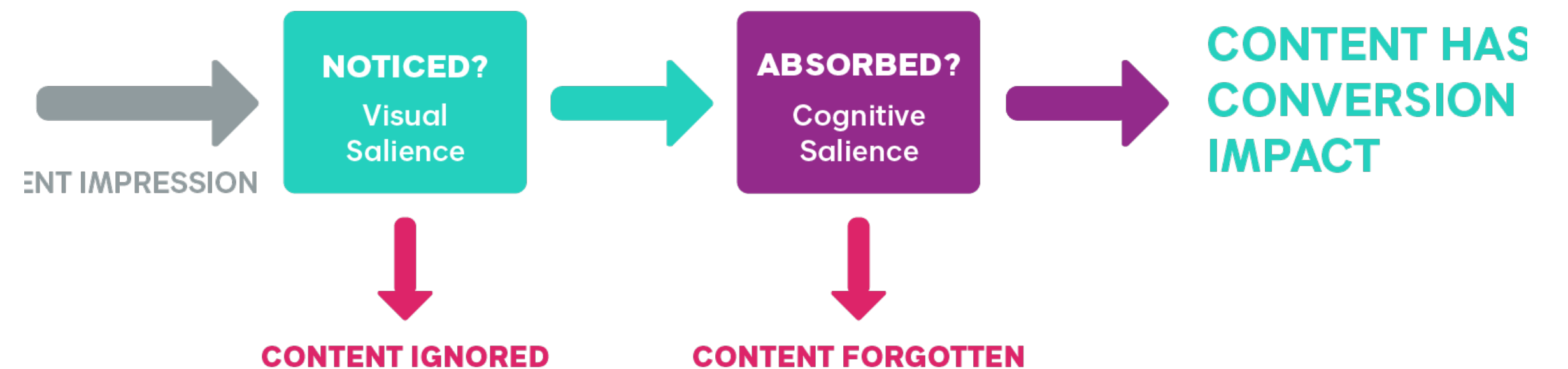
They reflect critical points on the purchase decision journey that combine shopper mindset, mission and touchpoint context. For example, the in-store retail journey covers 4 zones of impact:

Zone 4
Destination

Zone 3
Impulse

Zone 2
Transition

Zone 1
Proximity

**① PROXIMITY** 👤 Shopper is on the move and not looking to make an imminent purchase. **Passively considering new information**

**② TRANSITION** 👤 Moving into the shopping experience, and making a plan for what to buy. **Actively considering new product categories**

**③ IMPULSE** 👤 Disrupted from their shopper mission, in the queue or at a choke point. **Actively evaluating new products and deals**

**④ DESTINATION** 👤 Checking items off their list and comparing product specifics as they bargain hunt. **Actively validating already-planned purchases**

**By combining quantifiable neurological data and shopper marketing principles, Commerce Content Optimizer's AI predicts your ad's performance in various market conditions.**

Firstly, by simulating the **visual salience** of your content, which represents the first 3 seconds of viewership and is an indicator of whether the asset attracts attention. If you've used services like 3M VAS or Dragonfly AI, this step is similar in its heatmap output.

Thanks to our Machine Learning algorithm, a second expanded step initiates a neurologically based analysis of your asset's content for each Moment-that-Matters: identifying what is **cognitively salient** based on marketing channel, product category, and behavioral zone, and represents whether your content registers with impact to affect a future decision.

ENT IMPRESSION → **NOTICED?** Visual Salience → **ABSORBED?** Cognitive Salience → **CONTENT HAS CONVERSION IMPACT**

↓ **CONTENT IGNORED**

↓ **CONTENT FORGOTTEN**

COMMERCE CONTENT OPTIMIZER

As we brought Commerce Content Optimizer live to market, we ran recurring regression analyses to see whether our clients' cognitively salient assets corresponded to an uptick in their sales. Beyond finding a direct causal link between higher cognitive salience and sales, we also established that assets optimized by Commerce Content Optimizer resulted in more than 15% higher Return on Ad Spend over the course of a month-long campaign.



**E-Commerce /** Discovery & Display

| | |
|---|---|
| Branding Presence | |
| Competitive Benefit | |
| Call to Action | |
| Intrinsic Properties | |
| Usage Occasion | |
| Brand Values | |



**Correlated Retailer Metrics Impact**

CTR
Post-Click RoAS
Viewthrough RoAS

Consumer is not looking to immediately purchase smart wearables and is engaged in daily activity when passively exposed to ad campaign.
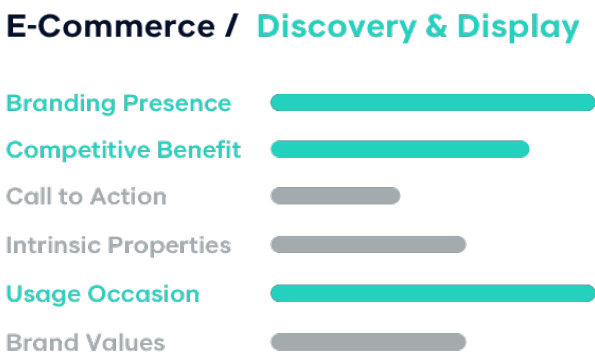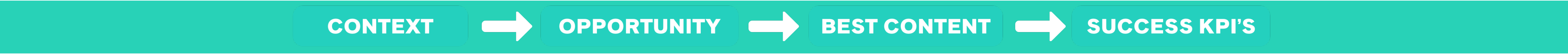
Visual messaging priorities should nudge the consumer along the purchase journey by **introducing a new passive consideration set**.

Best asset focused on the moment of consumption, leveraging brand equity to engage the consumer's consideration.
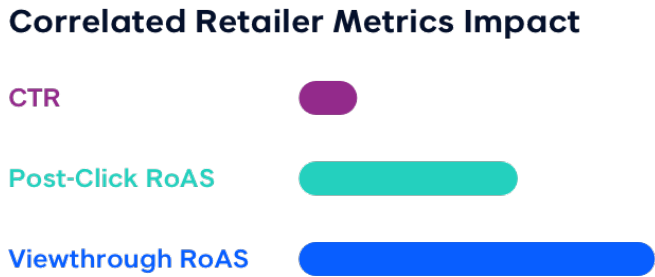
The halo effect of brand equity measured for success against all brand products sold during the 14-day lookback window.

| CONTEXT → | OPPORTUNITY → | BEST CONTENT → | SUCCESS KPI'S |
|---|---|---|---|



**E-Commerce /** Moment of Purchase

| | |
|---|---|
| Branding Presence | |
| Competitive Benefit | |
| Call to Action | |
| Intrinsic Properties | |
| Usage Occasion | |
| Brand Values | |



**Correlated Retailer Metrics Impact**

CTR
Post-Click RoAS
Viewthrough RoAS

Consumer is in the process of actively evaluating their options with the intent to purchase a smart wearables product (category pages, featured products, etc...)
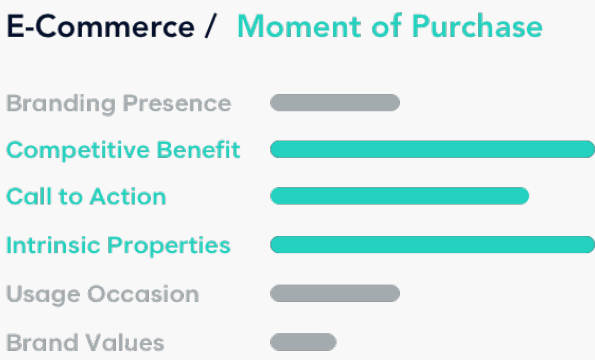
Visual messaging priorities should **validate the consumer's now-active consideration set** by focusing on the product's competitive benefit, down to the intrinsic features.

Focused on competitive advantage of using product over other options. Asset also calls to action, spurring the consumer at this time-sensitive moment.
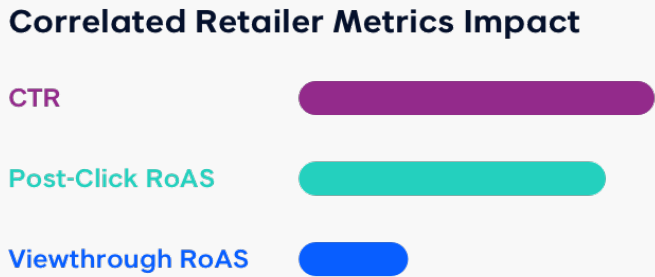
Was the asset effective at converting to a direct sale of that product?

COMMERCE
CONTENT
OPTIMIZER

Get in touch to find out how
Commerce Content Optimizer
can work with your flow