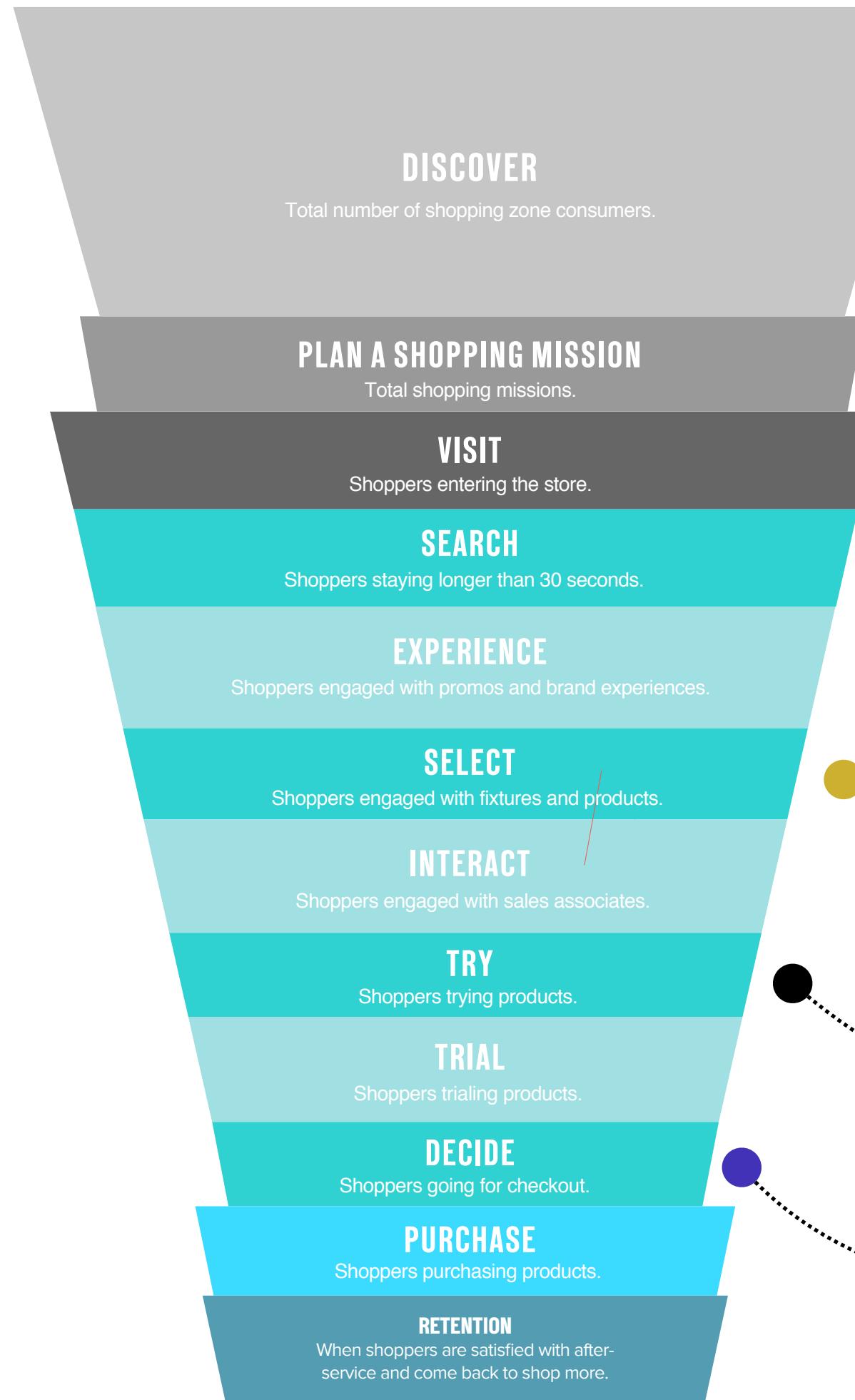


STORE DNA

This document describes the types of cameras and computer vision algorithms used in StoreDNA deployments.

PART OF THE FUNNEL



NAME OF THE CAMERA

 **PASSERBY/ WINDOW ENGAGEMENT CAMERA**

CAPTURE RATE WINDOW ENGAGEMENT TIME / # GLANCES

 **PEOPLE COUNTING / BOUNCE RATE / DWELL TIME CAMERA**

TRAFFIC SHOPPING TIME BOUNCE RATE

 **DEMOGRAPHICS CAMERA**

AGE GENDER

 **CATEGORY / FIXTURE ENGAGEMENT CAMERA**

PROMO ENGAGEMENT FIXTURE ENGAGEMENT CATEGORY ENGAGEMENT

 **PRODUCT INTERACTION CAMERA**

PRODUCT ENGAGEMENT

 **FITTING ROOM QUEUE CAMERA**

FITTING ROOM QUEUE TIME FITTING ROOM TRAFFIC

 **CASH DESK QUEUE CAMERA**

CASH DESK QUEUE TIME CASH DESK TRAFFIC

METRICS

CAMERA IN FRONT OF THE STORE



PASSERBY / WINDOW ENGAGEMENT CAMERA

Metric Definition:

Passersby: traffic in front of the store; number of people passing in front of the store

Window Engagement: number of glances and time that passers-by are occupied by the shopping windows.

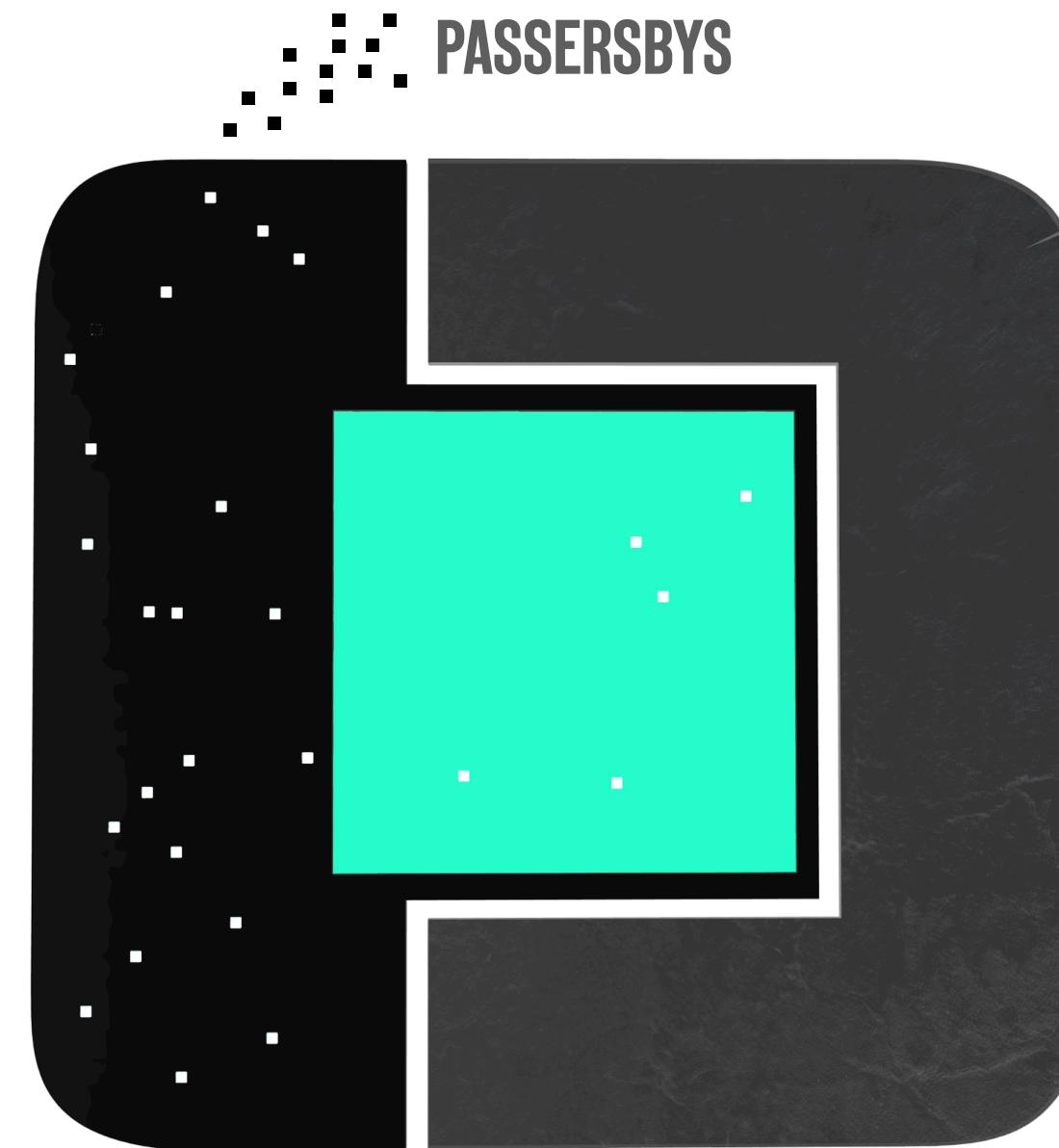
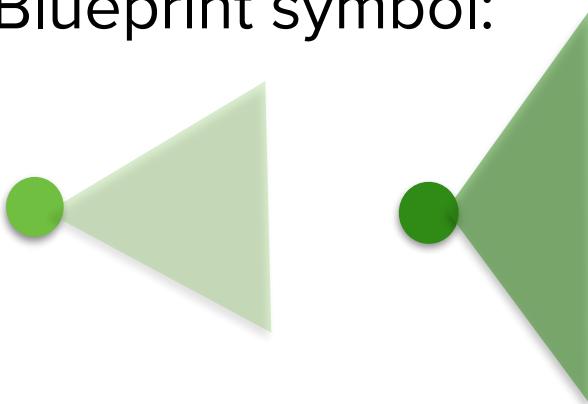
Example of usage:

During the “Last Promo Days” window-dressing campaign in Samsung Amsterdam store, traffic to the store increased by 7.5% compared to period before, from 5,511 to 5,925 visitors, in spite of lower number of passersby by -7.7% (190,691 to 176,050). In Samsung Utrecht store without this campaign, the passersby traffic was lower by -3.7% while traffic to the store also reduced by 6.0%.

Minimum granularity:

Number of passers-by per 15 minutes bracket.

Blueprint symbol:



$$\text{Capture rate} = \frac{\text{traffic}}{\text{passersby}}$$

CAMERA AT THE ENTRANCE



PEOPLE COUNTING / BOUNCE RATE / DWELL TIME CAMERA

Metric Definition:

Traffic: number of visitors to the store; number of people who entered the store

Bounce Rate: percentage of visitors who spent less than x seconds in the store

Dwell Time: average shopping time per visitor; average time that a visitor spent in the store.

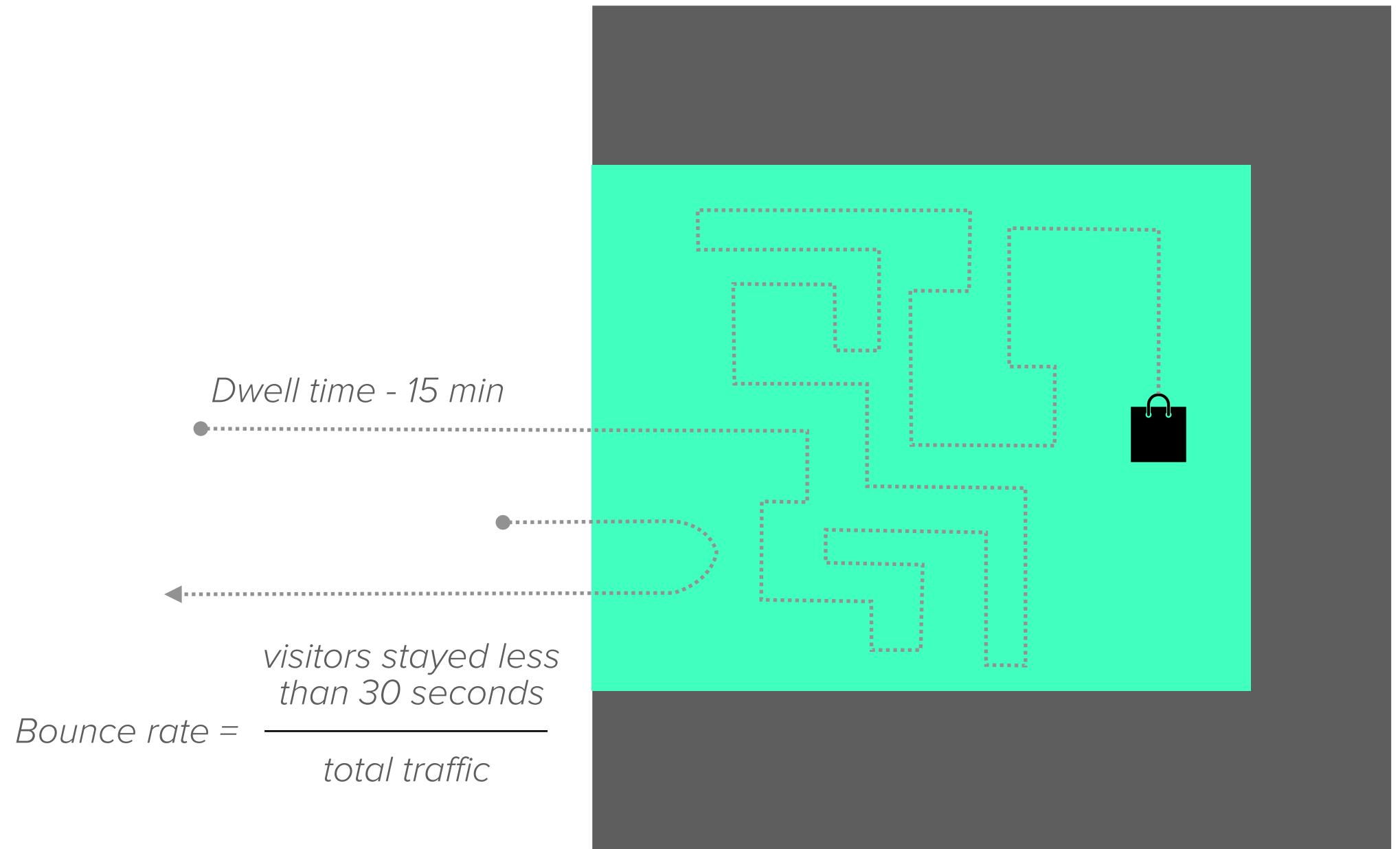
Example of usage:

784 visitors per day in Hunkemoller Cologne store during “Summer is here” online campaign over period 1 to 22 April 2017. This is 23.5% more than over the same period before the campaign.

Minimum Granularity:

1 hour (higher resolution possible, derived from exact timestamp of every visitor in and out of the store).

Blueprint symbol:



CAMERA FACING THE SHOPPERS



DEMOGRAPHICS CAMERA

Metric Definition:

Demographics: traffic broken down to age and gender.

Example of usage:

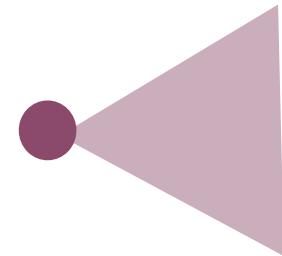
*During the new product launch we detected an **7% increase** in female traffic to the New York store.*

*After the implementation of new directories and signage, we have **25% more females** coming to Women's floor.*

Minimum granularity:

60 minutes bracket.

Blueprint symbol:



REAL TIME ALGORITHM - NO IMAGES STORED!



WHAT DOES IT MEASURE



GENDER



AGE BAND*

WHERE TO PUT IT



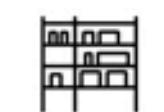
ENTRANCE



CASH DESK



FLOORS



SHELVES

CAMERA ABOVE CATEGORIES AND FIXTURES



CATEGORY / FIXTURE ENGAGEMENT CAMERA

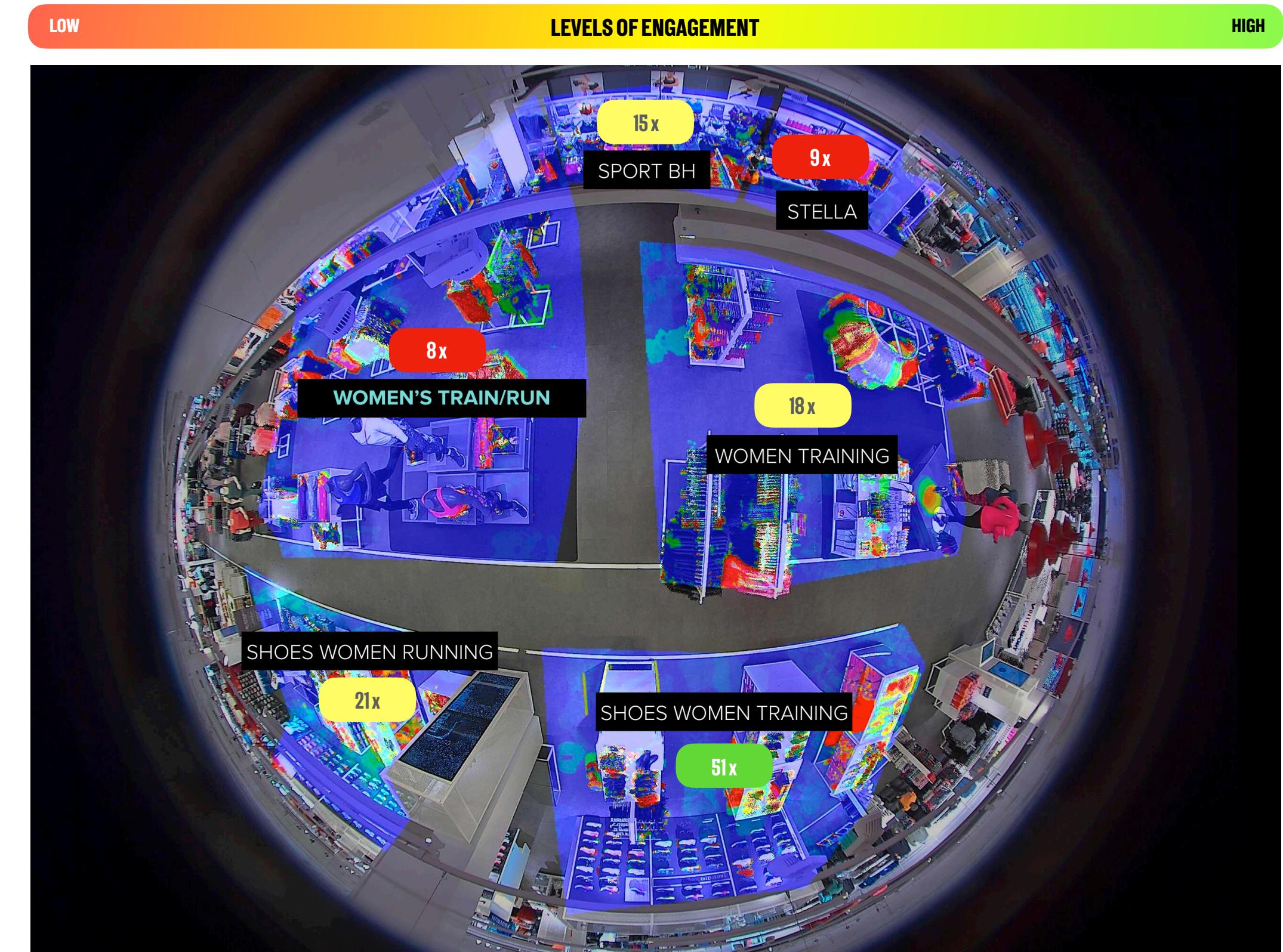
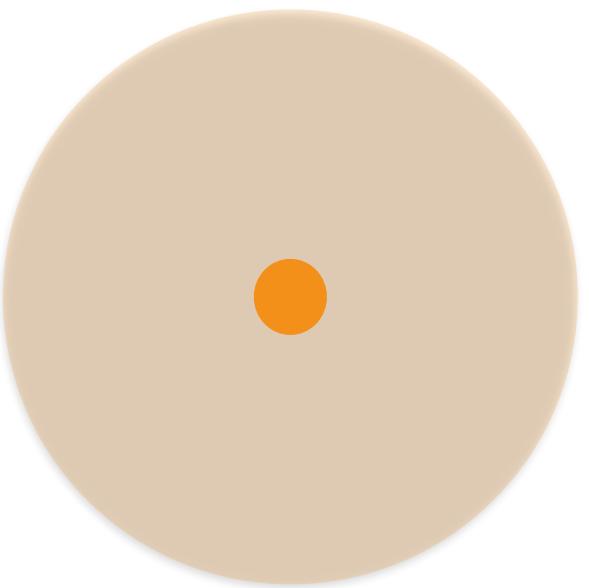
Metric Definition:

Engagement: combined traffic and time spent per Category / Fixture / Bench / Trial / Promotion; interaction with designated zone.

Example of usage:

While almost equally attractive for visitors with very comparable engagement, Fashion category generated 670% more revenue than My Exclusive. We should consider adding more staff attention to My Exclusive category, and in second phase experiment with slight price markdown.

Blueprint symbol:



CAMERA ABOVE SHOE WALLS



PRODUCT INTERACTION CAMERA

Metric Definition

Interaction: number of touches per individual SKU.

Example of usage:

Nike Flyknit is having large number of interactions, however, sales is not going up. Experiment with slight markdown if the units are in stock in all color choices and sizes.

Blueprint symbol:



CAMERA ABOVE FITTING ROOM AREA ENTRANCE



FITTING ROOM QUEUE CAMERA

Metric Definition:

Cabins Traffic: number of visitors entering the cabins

Queueing Time - time shoppers spend waiting in front of Fitting Rooms.

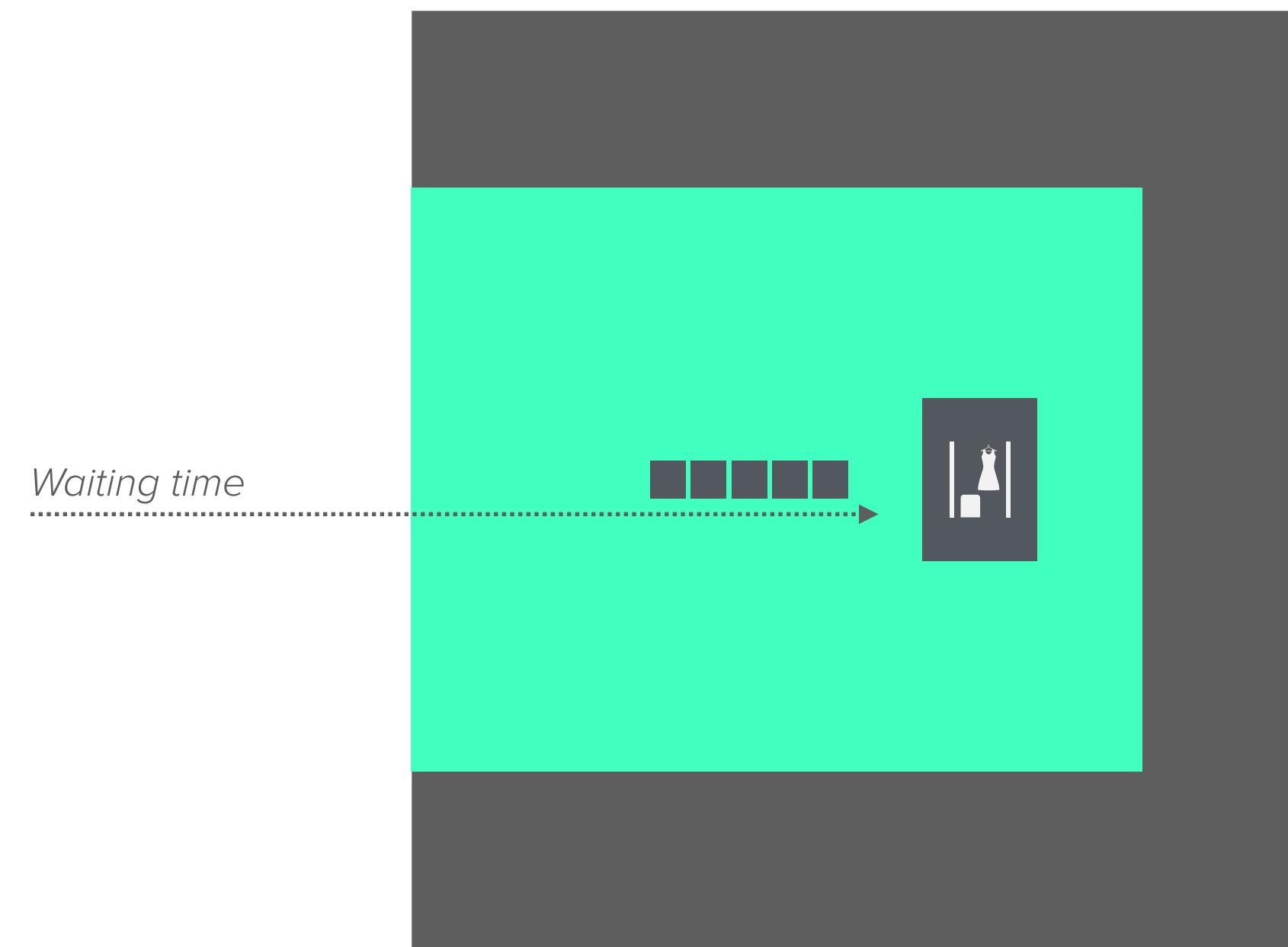
Example of usage:

In period May-April 2018 74.1% of visitors to the store entered the first floor and 27.2% of them tried on the assortment.

*52.8% of all visitors to the store reached the second floor, but only 16.6% of them went to the fitting rooms. After improving fitting room signage, share of visitors to the second floor using the second floor **fitting rooms increased by 2.7 percentage points**, to 19.3%.*

8 minute average wait time in front of the fitting room B on the second floor. Test with clearer/additional signing for fitting room A on the second floor.

Blueprint symbol:



CAMERA ABOVE CASH DESK WAITING AREA



CASH DESK QUEUE CAMERA

Metric Definition:

Queueing Time - time shoppers spend waiting in front of Cash Desks.

Example of usage:

8 minute average wait time in front of the cash-desk C on the second floor. Consider improving signage and communication to reroute traffic to other cash-desks at peak times.

Blueprint symbol:

