The Store of the Future: Indoor positioning using Visible Light Communication

Gonneke Gros
Senior Director Food and Large retail segment | Philips Lighting





Lighting up the world since 1891

€ 7B	34,000	~75%	#1 in LED	#1 in connected
sales in 2017	FTEs worldwide	of sales are B2B	65% of sales are LED (2017)	Systems and Services







Light sources and electronics	Light fixtures	Systems & Services

PHILIPS


3
skin care
fragrances


Vers fruit
Dagelijks gesneden en gepast
GROENTE
& FRUIT
Vrolijk


Bershka
Bersk




VEGAS

Retail trends…..



Millennials

The first truly digital generation

Having grown up with the internet, online, mobile and social media became the norm. The Millennials – born between 1980 and 2000 – are the first truly digital generation and will make up for the majority of shoppers by 2020. Their desire for a convenient, interactive, seamless, humanized and personalized user experience is shaping a new reality for retailers.



Retailtainment

Don’t sell to me, entertain me! ‘Retailtainment’, as the name suggests, is a fusion of retail and entertainment – a trend that is redefining retail.

Shoppers are looking for richer experiences, both online and in-store. Physical stores are becoming playgrounds – places where brands can create immersive environments for shoppers, through design, service and overall experience.

Think multimedia theatres, multisensory experiences, think parties with DJs and virtual reality with VJs.

PHILIPS



Take part and create

in-store workshops and classes

Shoppers want ‘an immersive and participatory experience, where they feel part of the brand community and where they perceive extra value beyond the product.’*

Retailers are looking at creative ways to respond, e.g. by turning part of their store into a workshop space and inviting shoppers to classes (cooking, yoga, photography, do-it-yourself).

*Source: FreshMinds report

PHILIPS



Experience

is the product

Shoppers are seeking enjoyable experiences and ‘destination’ zones. They want shopping made easier by including somewhere to take a break. Related departments can merge to make one ‘destination’, such as:

- A beauty salon or a refreshments bar next to relevant products
- Create health and wellness areas to re-energize weary shoppers
- Combine baby supplies, kids clothing, shoes and toys into one kids area, to make mothers’ shopping journeys simpler
- Gaming room for teenagers

PHILIPS

Embracing the new customer journey

Shopping evolution – from transactional, or multi-channel, in which the customer can pay and take delivery of a product, to omni-channel where a seamless brand experience is delivered across all available channels to best fulfil the shopper's desires. This can make the shopping experience far more compelling, engaging and personal.

Single Channel



- Shoppers experience a single type of touch-point
- Retailers have a single type of touch-point

Multi-Channel



- Shoppers see multiple touch-points acting independently
- Retailers' channel knowledge and operations exist in technical & functional silos

Cross-Channel



- Shoppers see multiple touch-points as part of the same brand
- Retailers have a 'single view of the customer' but operate in functional silos

Omni-Channel



- Shoppers experience a brand not a channel within a brand
- Retailers leverage their 'single view of the shoppers in coordinated and strategic ways



Convenience

is king

In a fast-paced world, customers increasingly value time-saving conveniences, such as:

- Contactless payment
- Scan and go
- Time-saving apps
- Store pick-up services / click and collect
- Easy re-ordering from home
- Targeted offers – to make choice easier

PHILIPS



Digital transformation has been more pivotal

to retail than to any other industry*

Retailers have access to a large variety of technologies nowadays to inspire their shoppers. Some examples are;

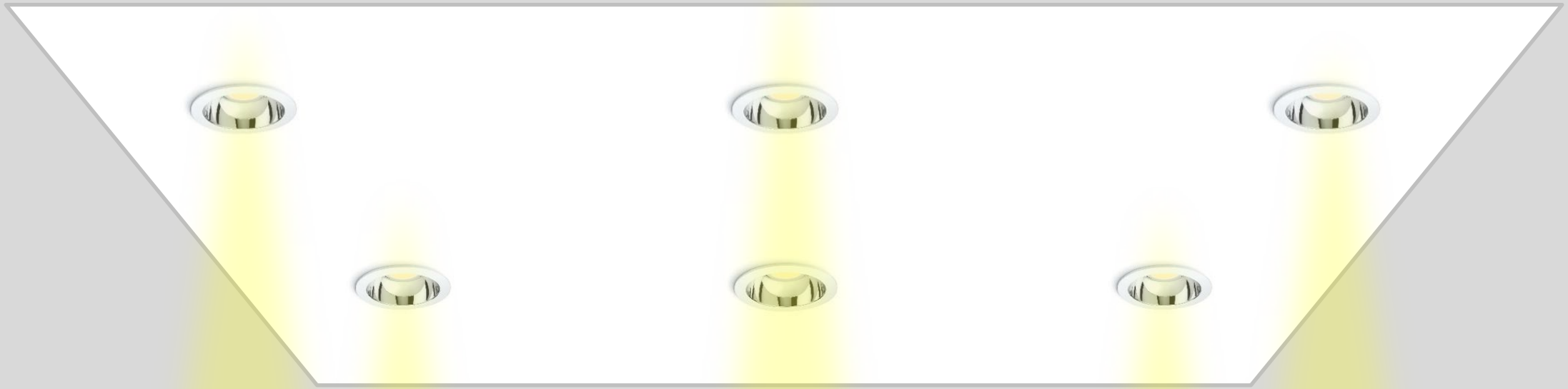
- Electronic shelf labels
- Digital displays
- Product information apps
- Location based services
- Augmented reality
- Virtual reality
- Robotics

*Gartner, Market Guide to Indoor Location Application Platforms, 2017

PHILIPS

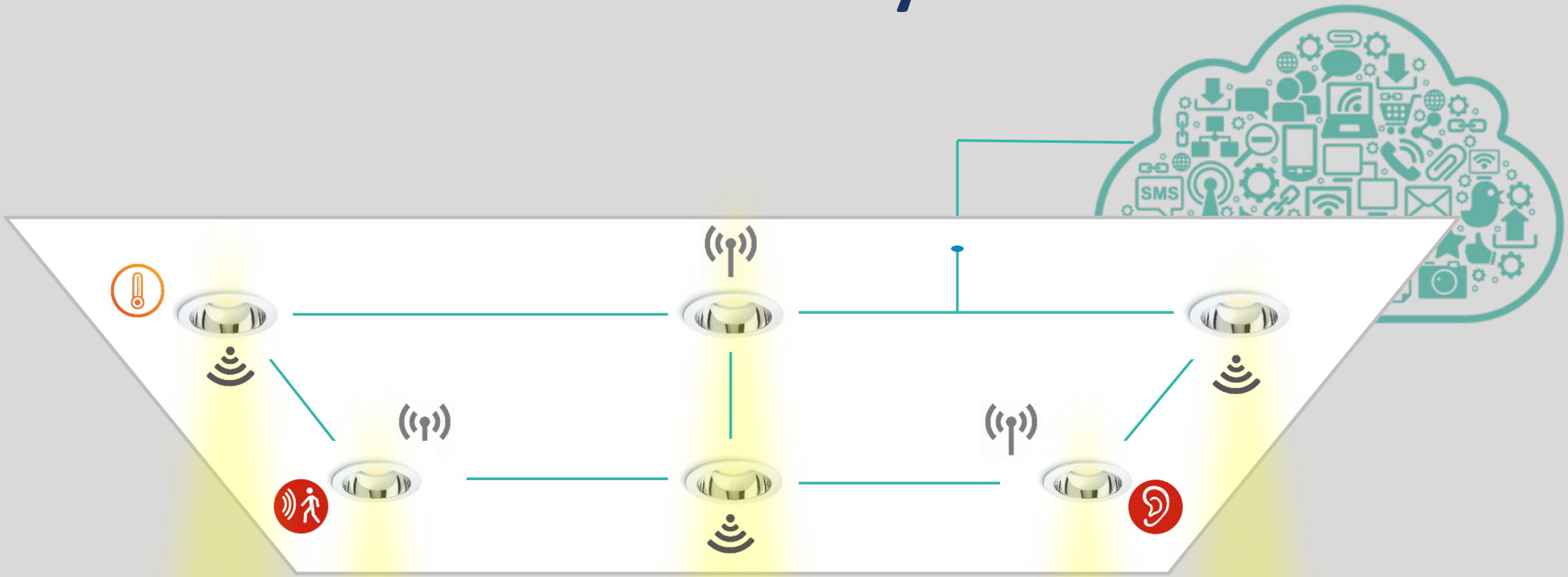
Lighting for location based services….

Turn infrastructure that illuminates a store…



PHILIPS

..into it’s central nervous system



PHILIPS

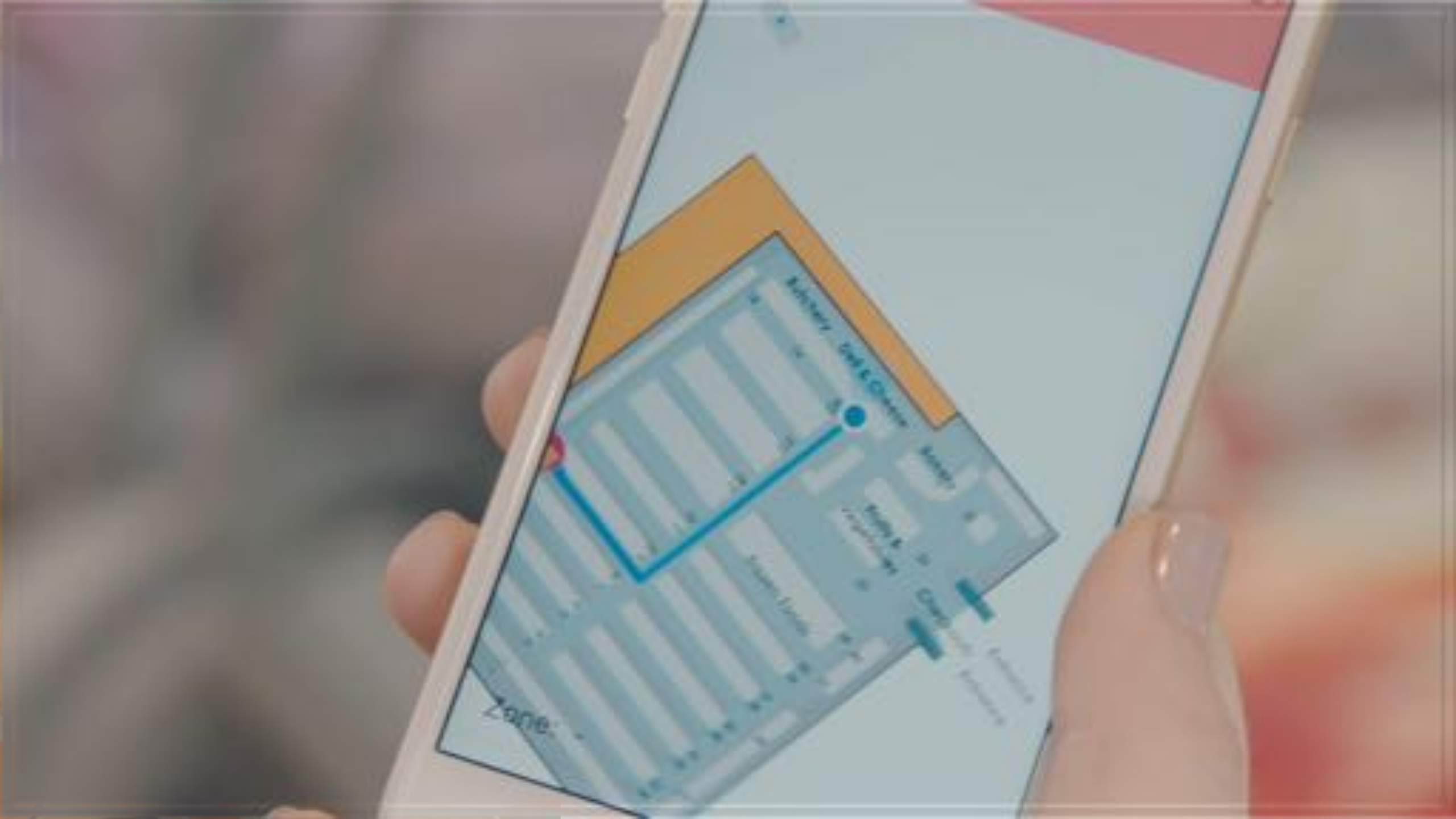


A game-changer

for aswaaq

- aswaaq is Dubai's most innovative retailer
- New LED lighting system, with Coreline trunking delivering 50% energy savings
- Philips provides indoor positioning and mapping through Aisle411
- Mobile app "REACH" developed by ValueLabs and Alpha Data offering
- Product search
- Location based promotion
- Recipes

PHILIPS


Zone

Our mission

with location based services for Retail

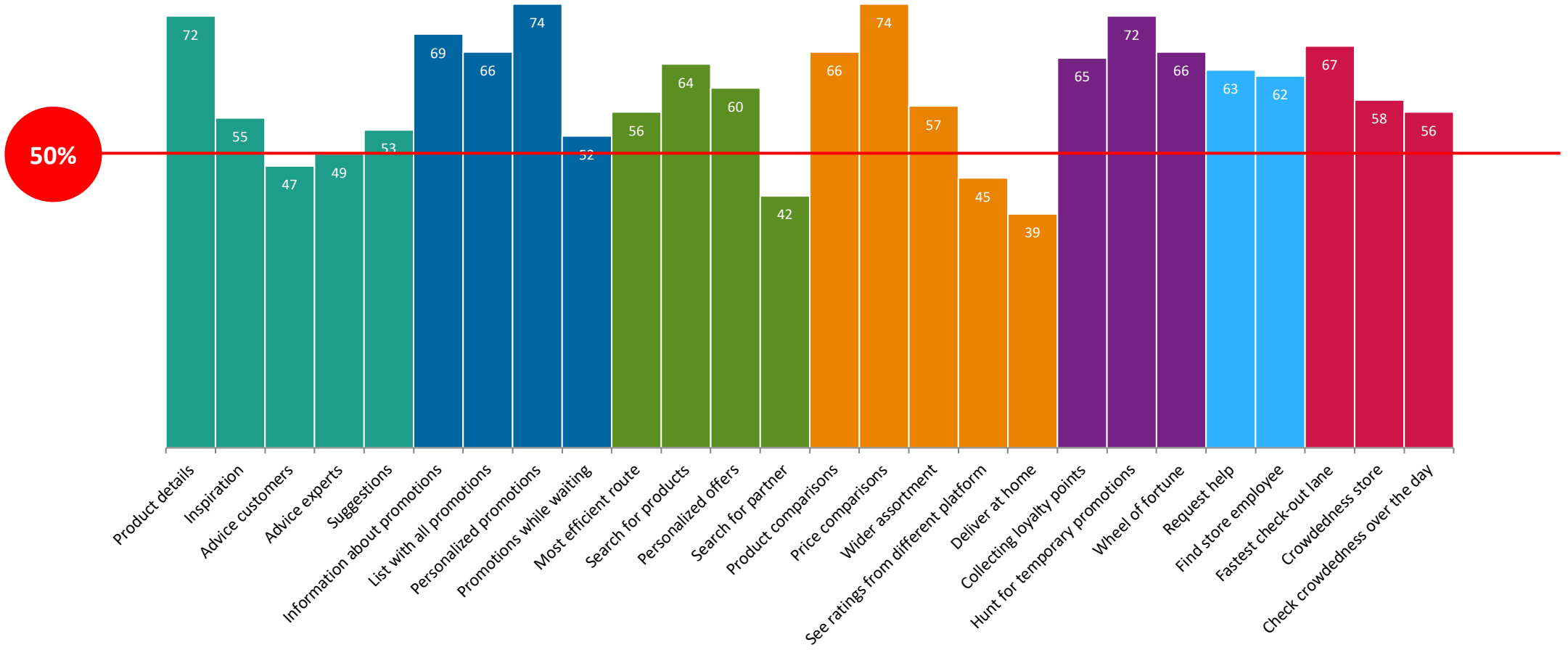


make the store
as convenient and engaging
as the online store
with in-store location services

PHILIPS

Location based services

are in demand with grocery shoppers….



PHILIPS

Five categories
of location services stand out

Receive and find good deals..	Receive personal promotions based on location	74	70
	List promotions close to me	66	64
..and add excitement	Hunt for temporary promotions	72	73
Search for products	Search for products	64	72
Fast product and price information	Get product details	72	83
	Easy price comparison	74	80
Convenience and efficiency	Request help	63	78
	Check fastest check-out lane	67	63

Selection from top-10 global use cases

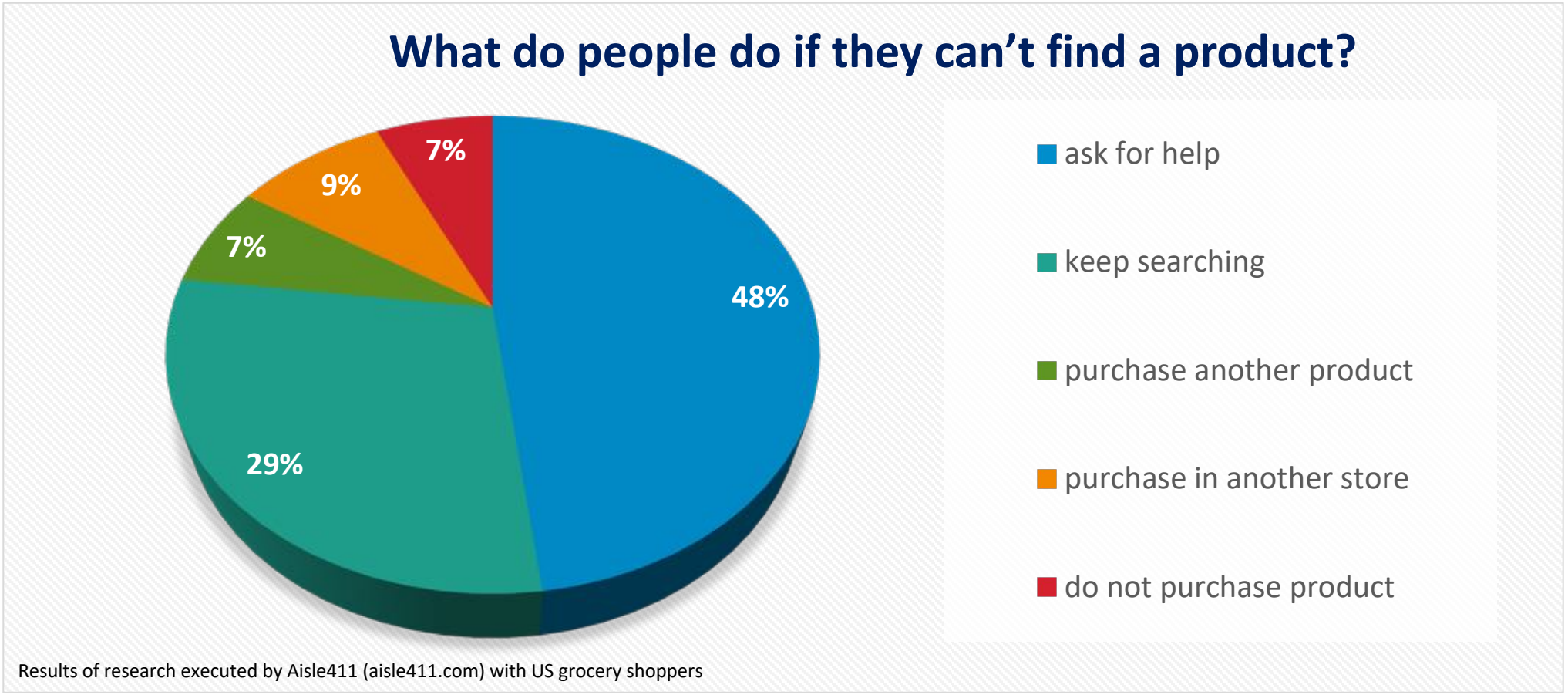
Drive app usage
with location services

Country	Current app usage	Intended app usage with location services
	47 19	54 57
	28 16	57 60
	24 11	323 5



Avoid lost sales

with product search



Results of research executed by Aisle411 (aisle411.com) with US grocery shoppers

PHILIPS

Shopper engagement

Five key areas where indoor positioning can help shoppers to get exactly what they want – so they leave the store happy.

Shopper convenience	Shopper engagement	Staff/store efficiency	Data/analysis
Show me where I am	Location based (personal) promotions	Location tag products or issue reports	Enriched personalized multi-channel marketing
Way finding: products, PoI	Location based information/notification • Product suggestions • Inform while queuing	Way finding: products, issues, staff	Store/staff effectiveness assessment: • Heat maps • Customer flow/dwelling
Dynamic (optimal) shopping route		Dynamic routing for order picking	
Location relevant information look-up	Location based interaction • Trigger reaction/survey • Trigger social interaction	Location based staff instructions	Marketing impact assessment
I need help: come and find me	Entertainment /gaming • Treasure hunt • Visit and collect points	Location based sales/service support	

Partnering with brands		
Brand-sponsored convenience and engagement	Location based compliance notification	Analytics based brand co-operation

PHILIPS

Location based marketing

Some insights & numbers

- 75% of marketers say location-based marketing will play a crucial role in their business
- Mobile advertising is the fastest-growing area of paid spend by marketers in 2016
- Approximately $100 billion spent in mobile advertising in 2016
- All location technologies are set to grow by double digits
- 70% brand decisions are made in the store and only 5% of shoppers are brand loyal
- Whole Foods used geo-fences to serve up local ads and realized post-click conversion rates of nearly three times higher than national average
- Online-to-offline (O2O) attribution will become an important metric in advertising over the next 5 years.

How retail and brands can co-create

Who we talked to

























How retail and brands can co-create

What brands told us

- Brands main challenges are
  - taking advantage of digitization
  - creating a seamless, sustainable and engaging customer relationship
  - having the ability to demonstrate Marketing's ROI
- Location based shopper activation can partially overcome the challenges by
  - digitizing the store and the mobile strategy
  - creating personalized contextually relevant in-store experiences
  - fact-based evaluation of in-store activations
- In order to eventually
  - build brand and drive loyalty (longer term)
  - drive sales (short term)

How retail and brands can co-create

How it should look like

- Criteria for location based activation
  - Fit brand strategy
  - A clear digital and physical component
  - Uses the specific strength of the technology
  - Aligned with characteristics of product category
  - Solve shopper’s issues in the shopping journey or insprire
- Performance metrics for evaluation:
  - Traffic to shelf
  - Penetration
  - Basket size

How retail and brands can co-create

What use cases they find interesting

Sales

- Combi deals
- Discount / multipack
- Stimulate trial
- Stimulate direct consumption
- Inform/Inspire

Loyalty

- Campaign activation
- Create brand experience
- Extend loyalty program
- Reward loyal shoppers
- Inform/Inspire









Our mission

with location based services for Retail



make the store
as data rich
as the online store
with in-store location data

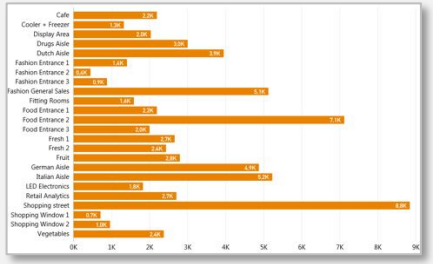
PHILIPS

Granular insight

in shopper behavior

Our analytics service allows access to the in-store location data of users of the mobile app or smart carts per **store zone** and selected **time interval.**

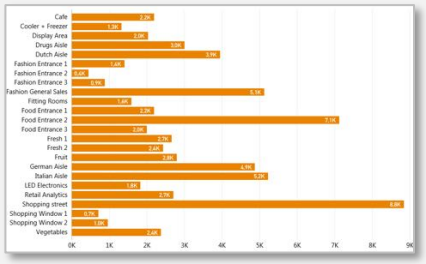
Footfall



The #devices that entered the zone (visit) in the selected timeframe

Indicates if zone **attracts** visitors

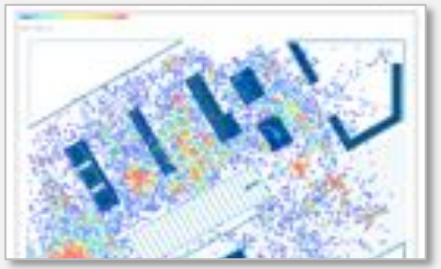
Dwell-time



The (average) #seconds a devices has spend in the zone, per visit, in the selected timeframe

Indicates if zone **engages** visitors

Density



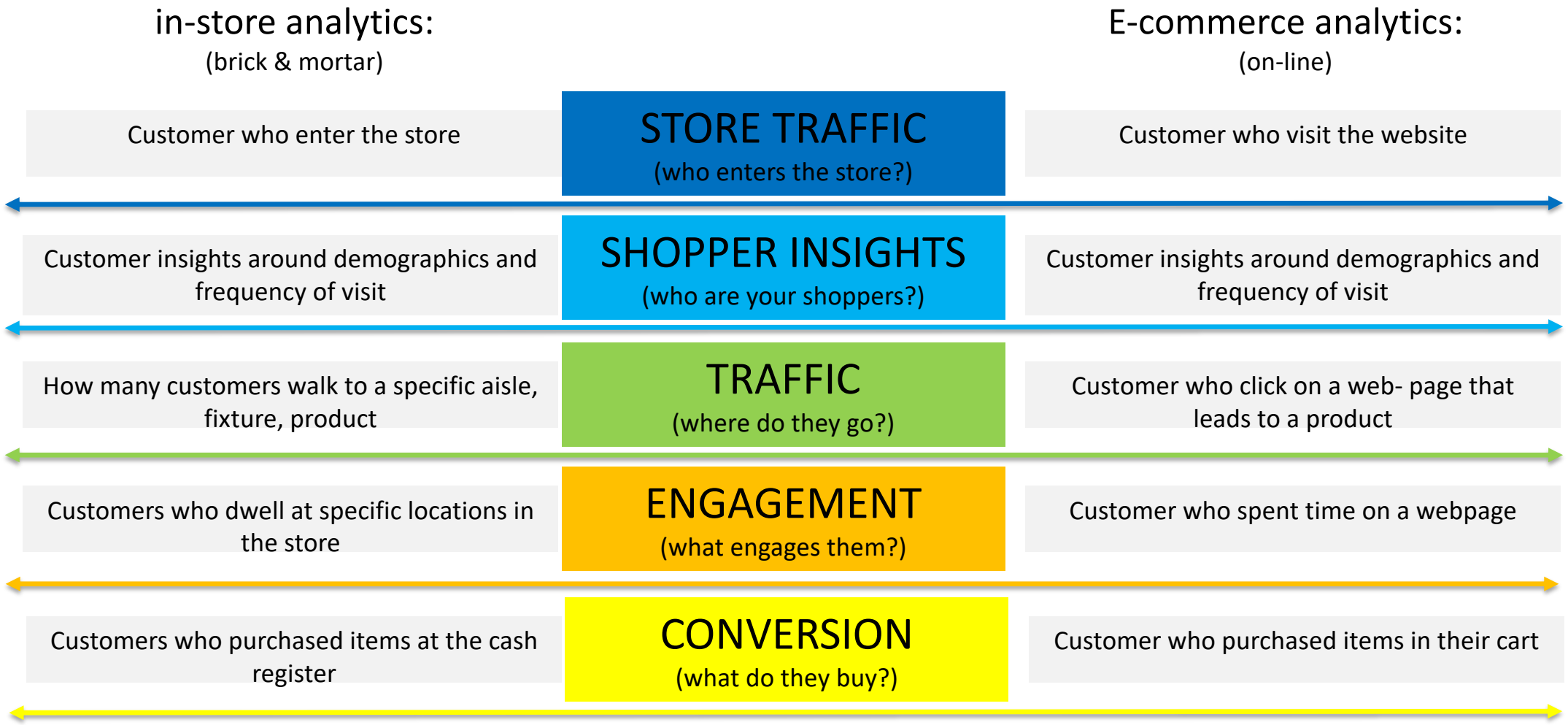
The total #seconds spend in a 12x12 inch pixel, off all devices visiting that pixel.

Indicates **relevance** of the area

PHILIPS

Commonalities

of E-commerce & in-store analytics



Worldwide

deployments













PHILIPS



www.philips.com/indoorpositioning