

**PHILIPS**

Food and large  
retail

Indoor positioning



Case Study  
Indoor Positioning for  
Superior Customer  
Service at Carrefour

Lille, France

**Client**  
Carrefour  
.....  
**Location**  
Lille, France  
.....  
**Lighting system**  
Indoor positioning  
.....

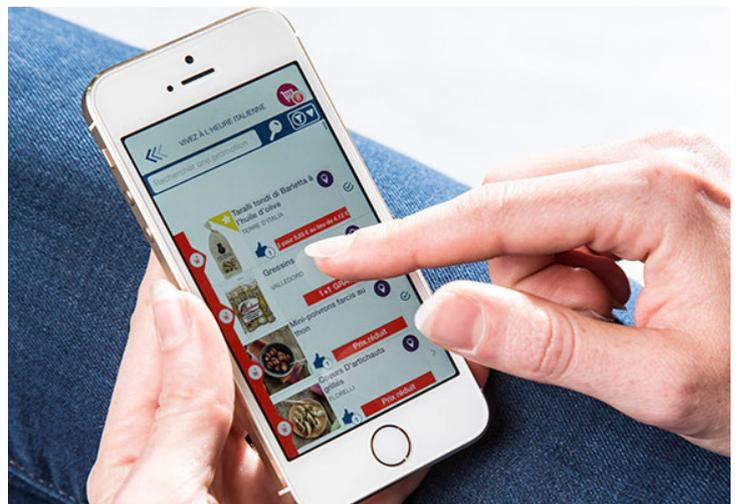
French retail giant Carrefour is using an **innovative indoor positioning system** to transform the shopping experience in its Lille hypermarket



## Background

Founded in 1959, French retail giant Carrefour now spans the globe, operating 10,800 stores in 33 countries.

Always concerned with improving customer satisfaction, Carrefour conducted a research study with shoppers to learn more about their in-store experiences. The study showed that customers wanted to be able to find products and promotions more easily. Locating items may not be too much of a problem in a store that carries 200 items, but it can become difficult in a large store that offers thousands of items.



“

We work with Philips on energy savings, and we wanted to test a new service in Carrefour Lille to go beyond just lighting.

Céline Martin, business models and innovation manager for Carrefour



## The project

Carrefour installed a Philips connected lighting system with indoor positioning when it renovated its hypermarket in the Euralille mall in Lille—one of the top ten shopping malls in Europe—in 2015. The system allows customers to find products on promotion throughout the store using a specially designed smartphone app.

“We work with Philips on energy savings, and we wanted to test a new service in Carrefour Lille to go beyond just lighting,” said Céline Martin, business models and innovation manager for Carrefour hypermarkets. “The focus we made is to specialize and localize the promotions for people.”

While most smartphone users are familiar with at least one of the many global positioning apps on the market, they may not be aware of the advantages of indoor positioning systems, which can pinpoint a user's location in a store rather than on the globe. Once located, the user can receive relevant, in-context information.

After downloading an app designed by Carrefour and selecting promotions from a catalogue, a shopper can orient herself with a map and start navigating to the list of selected items. As she moves around the store, the app can also show promotions on items around her, to make sure she doesn't miss out on that perfect deal.



“

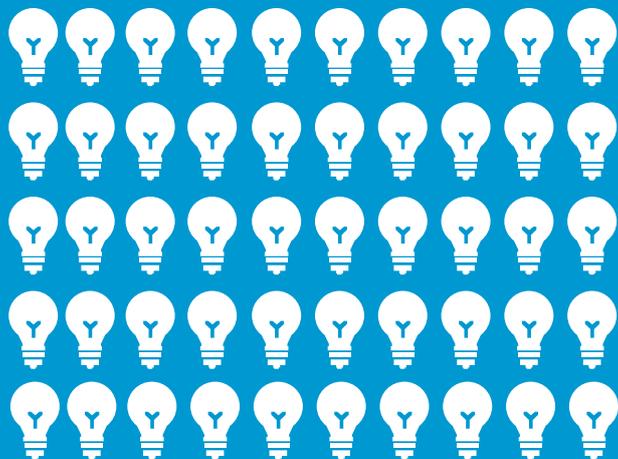
Philips acted as full service provider, offering the lighting, installation, venue enablement and software design-in support for Carrefour’s application developer.

Marlène Tisse, Retail Marketing Manager, Philips Lighting France

The app allows her to like promotions, and report promoted items that are out of stock. Carrefour staff uses an app to localize promotions around the store, simply by standing in front of a product, selecting it in the catalogue, and tagging it with its location.

“The main benefit for customers for this new application is to provide a shopping list with promotions. And when you arrive in the store you can localize all the products you choose,” Martin said.

The Carrefour installation distributes 800 linear LED fixtures across the 7,800 sq m store, and uses a Philips patented version of visible light communications (VLC), a technology that transmits a unique code that can be detected by a smartphone camera but is invisible to the human eye. The smartphone app reads the VLC code and pinpoints exactly where the visitor is standing in the store, to a distance of under half a meter. To protect privacy, the system does not collect any personal data from customers’ smartphones.



over

**800** linear LED fixtures

across the 7,800 sq m store



## Energy savings

reducing energy consumption by 50% over the previous system

“

The system has the potential to transform shopping into a more interactive experience. At the same time, it will enable retailers to differentiate themselves, enhance customer loyalty, and provide new services to shoppers.

Gerben van der Lugt, Head of indoor positioning at Philips Lighting

## Benefits

Because of its energy efficiency, the LED-based system was a natural fit for Carrefour, which is committed to sustainability. The company has announced its intention to reduce overall energy consumption by 30% and CO<sub>2</sub> emissions by 40% by 2020. The Philips systems helps with this goal, reducing energy consumption by 50% over the previous system.

Beyond energy efficiency and excellent illumination, the Philips system offers an innovative new way for Carrefour to deliver superior customer service in its stores via hyper accurate positioning of mobile devices without the need for additional hardware. Philips acted as a full service provider for deployment of the system, taking care of lighting installation, venue enablement, provision of an easy to integrate software development kit (SDK) and by offering support for Carrefour's mobile application developer. The system is flexible and future-proof, allowing Carrefour to offer additional features in the future as they learn from their experience at Lille.

## Hyper accurate positioning without additional infrastructure

The Philips LED fixtures send a unique code that can be detected by the camera of a smartphone, enabling location detection without using any additional wiring or hardware

## Superior customer service

Philips system offers an innovative new way for Carrefour to deliver superior customer service



