



PHILIPS



Smart Retail



Food is everywhere

The world faces huge challenges if we are to feed our ever-growing population. At the same time, food retailers are confronted with cultural, demographic and technological change on an unprecedented scale. What steps can they take to address the trends they see around them? And how should they seize the many opportunities this emerging landscape presents?

Food increasingly is the very 'glue' of retail. Although we are all connected with people online, we still like the idea of going out with friends and enjoying a freshly-baked pizza while we shop, for instance.

And the food category as a whole is experiencing phenomenal growth. Health-oriented foods are expanding at a rate of 5%. Fresh food is growing at 10%. Looking at a market like the Netherlands, we find that in the past seven to eight years, people have been buying fewer bicycles and shoes, but they're investing more in food and IT products.

Understanding the megatrends

Three mega trends have been helping to shape the future of retail in the second decade of the 21st century.



Increasing connections

Some five billion consumers are connected via smartphones and tablets to around 50 billion devices, sensors and light points. It's a market McKinsey estimates to offer \$1trillion of value in the next 10 to 15 years.



Changing demographics

People born after 1980 – the so-called 'millennial' generation – are now the dominant force in shopping. Retailers need to understand their lifestyles, aspirations and motivations if they are to provide the level of service they expect.



Demonstrating sustainability

In recent years, for understandable reasons, retailers have been under increasing pressure to show commitment to the environment and sustainability. Simple steps, such as a switch to LED lighting, can produce energy savings of up to 50%.

Rethinking the world of food

The fresh food movement is certainly having an impact on the market. As Parik Chopra – Global Business Leader, Retail & Hospitality Systems, IoT at Philips Lighting – puts it: “Food is getting more fresh, more local, more organic.” There’s increasingly a move towards sustainable production. People are interested in how their food is sourced.

The small, landlocked state of Sikkim – located in North-Eastern India – is a good example of where dramatic changes have taken place in recent years. Because of a public health crisis caused by the extensive use of fertilisers and pesticides, a decision was taken to go fully organic. Production per square meter remains the same, but earnings have doubled, which is great news for the farmers. Proof that sustainable agriculture can make strong business sense.

People want to know what goes into their food

80% of the world soybean, cotton and corn crops are now genetically modified, but there is a counter movement demanding GM-free food. There is certainly money to be made in this market, which is already worth \$500 billion and is growing at a rate of 15%.

And what about nutrition? Evidence shows that millennials are prepared to pay a premium if they believe the nutritional value of the food they consume is superior.



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There is now more and more movement for retailers to look at non genetically-modified organisms,” argues Parik Chopra. “If you read the reports, you find it’s one of the biggest concerns in Europe.”

Parik Chopra – Global Business Leader, Retail and Hospitality Systems, IoT at Philips Lighting

Inventive retail

Freshly cooked food is becoming something of a fashion. In a world in which people are increasingly shopping online, it’s also a great point of differentiation for retail stores.

Look at Urban Outfitters, for instance, who have formed a partnership with a coffee-bean manufacturer to allow customers to try out new flavors while shopping for clothes.

Some commentators speculate it won’t be long before farmers sell produce inside stores directly. Certainly, all kinds of new connections are being made between farm and fork.

Peapod in Chicago copied the idea of British retailer Tesco in South Korea, by allowing shoppers to order fresh food from a digital display wall on their way to work. It then gets shipped directly to their home. This is the world of

‘omnichannel’ demand side, where people will shop in a variety of different ways – many of them involving digital technology.

The supply side is becoming more digital too, with the possibility of using RFI tags on food which measure humidity, temperature and carbon dioxide. As a result, you can build up a picture of a product’s journey all the way through the value chain.

“Then you can measure, with data, and you can find out the anomalies in the value chain – why these products don’t even make it to the store,” says Parik Chopra. “So there’s a huge opportunity to look at IoT propositions in the area of the supply chain.”

Eventually, supply and demand may come together, with a customer scanning product and seeing exactly where it comes from.

The environmental challenge

Food produced today represents around 10 trillion kilocalories, but this will need become 16 trillion by 2050, if we are to feed the world population. At that point, a staggering 70% of carbon dioxide produced will come from food production.

Wastage is therefore a huge issue. 25% of today's food supply goes to waste – half of it in the production space and supply chain, often in the developing world.

Another 10–15% is lost in retail and distribution, while the remainder is thrown away by consumers, especially in the developed markets of Europe and North America. There's certainly an argument to say that retailers have a role to play in educating consumers in this regard.



The role of lighting

Philips Lighting is already playing a critical role in addressing a number of the issues outlined above – helping retailers to take advantage of opportunities, while also driving the energy efficiency that is so important in improving our environment.

Effective horticulture lighting can make food production more efficient and is important for the growth of sustainable city farming. At the same time, energy-efficient LED lighting in farms and warehouses can reduce power use by as much as 50%.

We use lighting to make retail stores more of a destination for consumers who may otherwise be attracted by online shopping. Our programmable LEDs and controls allow flexibility over the lighting in store, helping retailers to change the ambience for specific events.

What's more, a good-quality light spectrum can help to avoid discoloration of foods such as meat and cheese, helping to extend its shelf life by 20 to 30%. And it's possible to make a wider range of food, including fruit, look more appetizing to shoppers."

Last, but by no means least, lighting is being used for indoor positioning in stores which is far more accurate than GPS. As a result, retailers can profile shoppers better, help them find their way to products and send them targeted messages and offers to help with the marketing process.

It's a world of innovation from plow to plate.

