Continental shelves

European grocerant innovations range from feasible to futuristic.

BY CAROLYN SCHIERHORN

Suspended overhead mirrors and digital technology provide product information in the prototype supermarket featured at Milan Expo 2015.

Are European grocerants and suppliers more innovative in prepared foods and other on-trend shopper services than their U.S. counterparts? Sometimes, say global retailing experts.

"Europeans are amazingly successful and incredibly adaptive at creating things that they have to," observes James Sweeney, managing director of Stores Consulting Group in Wilmington, Ohio, but he adds that European retailers have often been too quick to foray into new territory, only to have to suddenly reverse course.

"Today, there is a lot of innovation on both sides of the Atlantic," agrees Carlo Ratti, an Italian architect, engineer and inventor who created the Future Food District pavilion at Milan Expo 2015. "But in Europe, space is often a bigger constraint than it is in the USA, and that forces people to develop new spatial solutions. Constraints are always good for creativity."

Let's take a look at some of the latest European grocerant initiatives that could one day make their way stateside after enjoying Continental success.

Vending evolution

Giant vending machines are already in use to dispense fresh and prepared foods in the United Kingdom, Germany,

Switzerland and France—on farms and village sidewalks, in shopping malls and supermarket parking lots. For example, German-made Roesler vending machines—consisting of stacked stainless steel and glass refrigerated and unrefrigerated compartments—enable consumers to buy food more easily from local farmers and after-hours from shops that close in the early evening. The products sold from these machines range from raw eggs and whole potatoes to prepared salads, jams and bread, *Produce Business UK* reported earlier this year.

The Compagnon du boulanger vending machine includes an oven to finish off prebaked baguettes.

Elodys of Void-Vacon, France, manufactures a baguette vending machine called the Compagnon du boulanger, which includes an oven that puts the finishing touches on prebaked loaves. Bakers can use these machines to sell their own product after-hours, right outside their stores or in remote locations.

"The fresh and crusty baguettes are delivered out of the vending machine in a few seconds, after receiving the customer's cash, credit card or prepaid card," says France Rossetti, a director at Elodys.

Perhaps the ultimate fresh food vending machine is a patent-pending concept from Russian inventor Semenov Dahir Kurmanbievich, widely reported on in the UK: a full-service drive-thru supermarket.

In a sleek warehouse facility with multiple lanes, the customer would drive up to an available station at which fresh, prepared, frozen and shelf-stable foods and other products would be displayed on columns of temperature-controlled shelving. By pushing a button, the customer could vertically rotate the shelves, select the desired items, and then place them on a conveyor belt to move everything along to the cashier. The customer, who would never have to leave the vehicle, would simply pay the cashier and receive the bagged groceries through the open driver's-side window.

Grocery delivery on steroids

Although home delivery may seem like the ultimate convenience, it still requires busy customers to be at home during specific time windows to receive their purchases and put them away. In Stockholm, the ICA supermarket chain and a courier company, PostNord, have partnered to provide in-home grocery unpacking for customers who are at work or on the go.

Swedish consumers participating in a pilot test for the service agree to have a special electronic lock installed on their front door, which the grocery courier unlocks with →


A Russian inventor's new supermarket concept would provide a drive-thru food shopping experience from start to finish.

his or her smartphone. The customers, in turn, have a smartphone app enabling them to identify the person entering their home. After unpacking the groceries, the courier places any perishable food in the refrigerator or freezer as needed.

A more revolutionary vehicle could be the self-driving delivery robots being pilot tested in London and other European cities. Launched by the Estonian co-founders of Skype, Ahti Heinla and Janus Friis, London-based Starship Technologies has high hopes for these small, semi-autonomous vehicles that can travel safely on sidewalks at slow speeds, according to the company.

Starship Technologies is testing self-driving delivery robots in London and other European cities.

"Our robots are a totally new class of devices that will provide a combination of low cost and convenience with less-congested streets and zero emissions," said Heinla, Starship's chief executive officer, in a statement.

Back in the here and now, European click-and-collect programs for online-purchased groceries are innovating in ways that may make them more useful for grocerant products. In the UK, says Jonathan Simmons of London-headquartered L.E.K. Consulting, commissary-prepared heat-and-eat meals are more prevalent in supermarkets than ready-to-eat meals intended for immediate consumption. So the move to offer supermarket "collect" facilities in refrigerated lockers in subway stations and airports makes it easier for consumers to include fresh prepared foods in their grocery orders.

"The use of lockers is still very much in the trial stages," says Simmons, who notes that Tesco, Asda and other large UK chains underestimated the cost of operating multiple pickup points, so they are scaling back their original plans. But the overall concept of click-and-collect may be here to stay, he says.

Future game-changers?

A more far-sighted vision of the future of European supermarkets came to life from May through October 2015 at the Future Food District pavilion for Milan Expo 2015, which explored the theme "Feeding the Planet, Energy for Life." Designed by Carlo Ratti's Turin, Italy-based firm and managed by Coop, Italy's largest supermarket chain, the prototype store combined suspended overhead mirrors and digital technology to inform shoppers about every product, from fresh vegetables to heat-and-eat meals.

"Every product has a precise story to tell," says Ratti, a professor and director of the Senseable City Lab at the Massachusetts Institute of Technology in Cambridge, Mass. "Today, this information reaches the consumer in a fragmented way. But in the near future, we will be able to discover everything there is to know about the apple we are looking at: the tree it grew on, the CO_2 it produced, the chemical treatments it received, and its journey to the supermarket shelf."

Customers in the fully functioning Milan Expo grocery store could also interact with a dual-armed robot called YuMi, manufactured by Zurich, Switzerland-based ABB Robotics to work alongside human employees in various workplace settings.

And at the 2015 Hannover Messe industrial trade fair in Germany, a robot chef developed by London-based Moley Robotics showed that it could one day assist or replace chefs in grocerant—as well as residential—kitchens. The robot chef has 20 motors, 24 joints and 129 sensors that allow its hands to replicate the motions of a skilled culinarian. These articulated precision hands are engineered by Shadow Robot Co. of London, which counts NASA among its international clients.

Trained by former BBC television MasterChef winner Tim Anderson, the robot chef received significant media coverage during the April 2015 exposition. "You tell it to do something—whether it's a bit of prep or completing a whole dish from start to finish—and it will do it," Anderson told BBC News in April 2015. "And it will do it the same every single time."

The robot chef, which can prepare 2,000 recipes, is expected to be available for purchase in 2017. G