

The co-operative food



SUSTAINABILITY CONTINUES TO SPROUT ACROSS THE FOOD SUPPLY CHAIN

The agricultural and grocery industries, along with the logistics providers that support them, remain on the front lines of environmental stewardship, despite occasional disparities for why it's important to "stay green."

Businesses exist to generate a profit. At the same time, many businesses are serious about corporate social responsibility and sustainability and have successfully incorporated these values into their culture and operations. In turn, these efforts positively impact the bottom line, which makes for a win-win situation.

Sustainability in the food supply chain is a good example. Farmers and food producers know full well the symbiotic relationship between environmental stewardship and food production. Clean water, nutrient-rich soil and mitigating the effects of climate change are fundamental to their business survival.

The grocery industry and its logistics providers, meanwhile, have historically operated on thin margins, which provides an obvious

incentive for these collective stakeholders to continually look for opportunities to operate more efficiently, more productively, and by extension, more sustainably.

William Salter, CEO and president of Paragon Software Systems, a provider of vehicle routing and scheduling optimization solutions, acknowledges the occasional paradox with regards to sustainability in the transportation sector.

"A lot of the spinoff from using routing and scheduling, and the products around them, do fit quite nicely into helping companies to be greener, whether that's their original intention or not," he says.

Salter has seen sustainability—and the results it can yield—evolve over the years, in the industry at large and with Paragon's own customers.

In order to maximize the results from routing and scheduling solutions, "it starts with making sure that you've got the right data set up in the system in the first place, so that you're planning routes that are realistic and achievable," he says. "It requires discipline to set up the system properly and take into account variables such as the road network, how long it takes to make a delivery at each drop point and other critical pieces of information."

Many companies take additional steps, like tracking the routes as they're being executed and making sure drivers are closely adhering to the planned routes.

"You can also set up a system to monitor driver behavior to find out if they are braking too hard, speeding or leaving the vehicle idling for too long," Salter says, all of which



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FFE, THE CO-OPERATIVE SEE GREEN WITH PARAGON'S SOLUTIONS

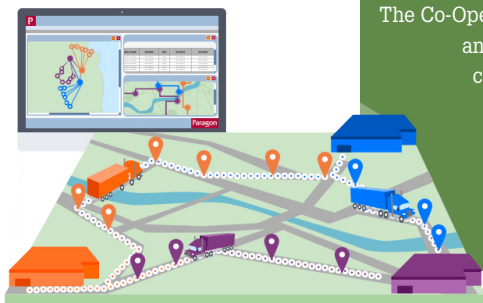
when optimized will contribute to a more efficient and sustainable operation.

Although sustainability alone is not driving interest in routing and scheduling solutions, admits Salter, he emphasizes that companies are focused on taking costs out of their distribution operation.

"They want to meet ever increasing demands for higher levels of customer service, without adding a huge amount of additional cost to the bottom line," he explains.

Meanwhile, Salter is seeing more companies evaluate their vehicle fleets and think about

⬇ **Vehicle routing and scheduling software can provide unexpected sustainability benefits.**



After implementing Paragon's routing and scheduling solution, Frozen Food Express (FFE) reduced its fleet size from approximately 750 to 700 vehicles, according to William Salter, CEO and president of Paragon Software Systems.

In addition to reducing the size of the pickup and delivery truck fleet, FFE experienced a 12 percent improvement in on-time delivery in the six-month period after implementation. By centralizing the planning function as well, FFE was able to free up local staff to focus on operating the service centers instead of being under pressure to find time to manually plan deliveries.

"Knowing where trucks are and who is available to deliver those loads has greatly added to the efficiency of our transport operations," states FFE.

In the UK, The Co-operative Food is cutting delivery miles and carbon emissions after deploying Paragon's dynamic transportation planning solution to its logistics service operation.

The Co-operative services nearly 4,000 stores throughout the UK, making about 34,000 deliveries on 9,500 routes using 1,300 trucks, every week. As The Co-operative expanded the number of stores and opened up new, larger distribution centers (DCs), it became clear they needed a sophisticated software tool to maximize the opportunities for efficiency gains. Their fixed routes generally provide efficient schedules, but volume fluctuations

made it difficult to meet expected delivery times while maximizing efficiencies.

Using Paragon route planning software with Paragon Resource Manager enabled The Co-operative to meet the challenge.

Every night, the planners update driver availability within Paragon Resource Manager. This provides the planning software with all available drivers, their start times, the trucks they can drive and their maximum shift length. Then, they enter the actual store order volumes and apply the store delivery windows to each. Next, the system creates the most efficient delivery schedule that meets the needs of the stores, while ensuring the driver and fleet resources are available to deliver the plan. The order information also updates the warehouse management system to enable the warehouses to pick the orders for the new schedule.

The switch to a dynamic resource-managed planning approach has already delivered a 5 percent reduction in delivery miles at a pilot DC, and The Co-operative is expecting a CO₂ savings of 5,000 tons a year across its entire distribution network comprising over 1,300 trucks and 4,000 nationwide stores.

"Using Paragon routing and scheduling software with Resource Manager for dynamic planning gives our depot planners a great tool to produce efficient, compliant delivery schedules that help us provide a better service for our stores," says Graham Leggett, senior transport planner, food operations—logistics service, at The Co-operative.

Photo Credit: Paragon

where alternative fuel vehicles like electric hybrid or hydrogen-powered vehicles might fit in their operations.

In some cases, legislation and stricter emissions regulations are the main driver behind companies' efforts to invest in more fuel-efficient fleets. Salter mentions London's Ultra-Low Emission Zone (ULEZ), which is scheduled to start operating in April 2019, as an example. The ULEZ will tighten restrictions on cars, trucks and motorbikes in a bid to address London's lethal air pollution and deter the use of older, high-polluting vehicles.

Other developments are also pushing companies to adopt routing and scheduling solutions—namely, e-commerce and home delivery. The proliferation of direct-to-consumer deliveries means more vehicles and more congestion on the roads.

"Vehicle routing, scheduling and planning systems are ideal for working out the impact [of e-commerce] and for deciding what kind of trucks are best to handle the different parts of that type of distribution," says Salter.

Indeed, the impact of e-commerce and home delivery are forcing city planners, logistics companies and retailers to consider options like staging posts at strategic locations in and around cities to facilitate customer pickups at centralized spots. Salter says companies may soon find themselves cooperating more and more with each other to accommodate the growth in e-commerce and the challenges associated with delivery of goods to the end consumer. **FL**

THE CHEP CARBONNEUTRAL POOLED PLATFORM SETS NEW STANDARD FOR SUSTAINABILITY

By Amy Wunderlin

Setting a new standard for sustainability, CHEP, a Brambles company, recently released the first-ever carbon neutral pooled (shared and reused) pallet platform in North America.

The label of carbon neutral is based on the CarbonNeutral Protocol trademarked by the Natural Capital Partners, a provider of solutions for carbon emissions measurement and reductions, renewable energy and water stewardship. The sustainability program is a global standard to demonstrate that businesses have measured and reduced their CO2 emissions to net zero for their company, products, operations or services in accordance with The CarbonNeutral Protocol.

"This [CHEP's] CarbonNeutral certified platform demonstrates the action businesses can take to reduce their carbon footprint and have a positive impact on the environment," says Mark LaCroix, executive vice president of the Americas, Natural Capital Partners. "With the carbon neutral half pallet, CHEP helps customers embed sustainability throughout their supply chain."

As a circular and reusable solution, CHEP's 40x42-inch carbon neutral half pallets incorporate sustainability into everyday business practices.

"When we introduced our pooled half pallet in 2014, it was an instant marketplace success, thanks to its ability to cut labor costs and increase sales," says Vishal Patell, vice president of marketing and customer solutions, CHEP North America. "Now, as a carbon neutral platform, the half pallet delivers as a true circular supply chain solution, helping to protect our planet without compromising profit."

As part of the CarbonNeutral Protocol, CHEP calculates the carbon footprint of the platform, and then purchases carbon offset credits from Natural Capital Partners. The credits benefit the Mississippi Alluvial Valley Reforestation Project, which aims to reforest 1 million acres of the Lower Mississippi Alluvial Valley, an area once covered by 22 million acres of dense forest. In addition, the project will reduce an estimated 200 metric tons of CO2 equivalent per acre, create revenue and jobs, and improve water quality and biodiversity. To date, CHEP has offset 926 metric tons (2.1 million pounds) of carbon emissions, equivalent to planting a variety of approximately 3,000 hardwood trees.

CHEP's carbon neutral half pallet won the Environmental Initiative of the Year Award at Industrial Pack 2018 in March.

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William Salter, CEO and president, Paragon Software Systems

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