



AMCS Case Study

Omrin,
The Netherlands

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Using AMCS route optimization, Omrin has been able to reduce mileage, make fewer stops, reduce fuel consumption, lower CO2 emissions, and optimize fill levels from 60% previously to 80% today.

Omrin's focus on a circular economy: "Together we recycle everything"

Omrin is the Frisian word for a closed cycle, the concept that includes reuse, recycling, and the cradle-to-cradle circular economy, and it is a very fitting name for a company that has a passion for recycling. As a leader in the collection, recovery, and processing of raw materials, Omrin has big ambitions when it comes to the circular economy, an inclusive society, and innovation. The company is actively working toward no fewer than seven of the UN's Sustainable Development Goals for 2030. They are fully committed to maximizing reuse, to reducing waste and recovering as much raw material from it as possible, and to produce sustainable energy.

Most sustainable company

Omrin, with its 450 proud employees, was named the most sustainable company in the Netherlands in 2019. They believe that keeping our planet habitable is something you do together with your community. In addition to recycling raw materials, Omrin also contributes to the production of biogas for 10.000 households, renewable electricity for 50.000 households, and steam, the combination of which makes up some 33% of the annual renewable energy production in the Friesland province.

Next generation

Omrin works within the community by teaching waste awareness and prevention in schools, offering convenient ways for people to pre-sort waste to maximize recycling, and running local shops to resell second-hand goods. The waste Omrin collects goes through a highly advanced sorting process for extracting the recyclable materials. Organic materials are used to produce biogas and the non-recyclable rest waste is converted to energy. Omrin has also invested in wind turbines to add renewable energy into the mix.

The company operates 10 materials recovery facilities and collects waste in 18 cities and towns totaling more than 200,000 households and businesses across the three northern municipal regions of the Dutch province of Friesland. Omrin uses AMCS software to optimize their collection routes, which constitutes approximately 400-450 underground, semi-underground, and above-ground residential waste containers.

Peace of mind in the planning department

Niek Westerhof, Omrin's Operational Manager of Collection & Recycling, explains how using AMCS route optimization software has helped them increase collection efficiency and reduce fuel consumption and emissions. "At first, we had the challenge of the low fill levels at that time, the unpredictability in planning, and in addition, we were on the eve of expanding our logistical area." It was time to find a solution to improve the operational efficiency of their waste collections, and they found it with AMCS.

Natasja Vemmer, Business Consultant at Omrin, continued, "We started the implementation by taking an inventory of our business assets. Then we checked to see if we had the right coordinates, the number of lid movements, when a container is full, and the different types of contents. Important related issues here were creating peace of mind for the planners and keeping manual tasks to a minimum."



[Watch video interview with Omrin](#)

A dynamic process to optimize collection and increase fill levels

Herwin van den Hengel, one of the planners at Omrin, says, "We switched from semi-dynamic collection to fully dynamic collection." The company uses IoT functionality to check the fill levels of containers. Each night, the containers send real-time fill level information directly to the company's AMCS software solution, which then creates a fully automated collection schedule that is ready for the planners to review first thing in the morning. "I check the schedule in the morning to see if everything is alright or if there are excesses, and then I forward the planning to the trucks," Herwin says.

This dynamic approach means drivers can now wait until containers are full before emptying them. This equals fewer pickups per day and increased load levels – and thus more efficiency – per truck. It creates significant savings for the company without diminishing the service to the customer.

One of Omrin's drivers, Johan Geerdink, tells us how the AMCS system works on his routes: "I get my assignments in the morning via the on-board computer, and then every day it's just a question of how many containers. It's a great system that works efficiently. Basically, you only empty the bins that are really needed, the full bins. We used to do it on a static route, but now we do it based on the system of fill level, and that works great," he says.

Efficient routes and well-timed collections that lower both costs and emissions

Since implementing the AMCS route optimization, Omrin is now able to collect more containers without having to use additional vehicles, according to Van den Hengel. "With the software, we have much better predictive insights," he says. "So, for example, during the holidays, Easter, Whit Sunday or Ascension Day, we can make much better predictions of how many vehicles we will need to deploy to empty the containers on time."

According to Westerhof, the AMCS software has helped Omrin to improve and stabilize its customer service. And, he adds, "We've got less mileage, fewer stops, reduced fuel consumption, and therefore, ultimately, lower CO2 emissions."

Another positive effect on the business from optimizing collection routes is that the fill levels of trucks have now increased from 60% to 80%. It has also meant a lot less stress for the planning department. On top of that, the company has been able to successfully add the entire planned expansion into a huge new collection area onto its dynamic planning process.

Westerhof says he is happy with their choice for AMCS' route optimization. As a leading global solution provider for the waste and recycling industry, AMCS is continuously focused on providing a technology platform that is industry-specific and process-driven. "We chose AMCS because they have a proven solution in the waste sector; they are renowned in the waste sector. We made a number of reference visits and, in the end, that confirmed our choice," he says.

“We don't empty the containers until they're completely full which means we have fewer pickups per day and thus a saving.

Niek Westerhof - Operational Manager of Collection & Recycling at Omrin

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AMCS' Municipal offering includes state-of-the-art technology solutions for household waste and recycling collection, route planning, vehicle technology, cart management, summer and winter services and customer service support.

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