

Descartes' Route Planning Solution Helps Postal Service Company Planning Bike Routes across Amsterdam



PostNL is the Netherlands' largest postal service company. The company greatly values to augment sustainability; since 2017, PostNL utilizes (electric) cargo bikes to deliver and collect business mail and to deliver parcels across the Dutch capital. It did require another way of route planning though. To support their bike route planning, the company turned to Descartes' route planning system.

“By using the Descartes solution, route planning is executed automatically; it doesn't give us much to worry about. We now notice that we can schedule more stops within various time windows. We will deploy the experience gained from using the solution in Amsterdam to implement the process in various other cities.”

-Lodewijk Aandewiel,
Logistics Designer at PostNL Bike Logistics

About PostNL

PostNL is het eerste beursgenoteerde postbedrijf en beschikt over het grootste en modernste netwerk voor brieven, pakketten en e-commerce in de Benelux. Daarnaast is het bedrijf actief in Duitsland en Italië. Bij PostNL werken in totaal ruim 44.000 mensen. In 2017 bedroeg de omzet 3,5 miljard euro.

Snel overzicht:

Resultaten

- Automatic route planning
- Giant step towards sustainability
- More stops can be planned for
- Content employees

The Challenge

With their focus on sustainable transport, PostNL aims at emission-free delivery in 25 inner cities by 2025. It all began in Amsterdam to having its mail delivered by cargo bikes. Lodewijk Aandewiel, Logistics Designer at PostNL Bike Logistics: "A one-way street may not apply to bicycles and across parks, so cycling is an option. The software we used, however, did not consider these options. Consequently, it did happen during the pilot phase that our city couriers arrived at a pick-up location too early." It was time to tackle route planning.

The Solution

PostNL definitely needed new software suitable for planning bike routes. After a selection process, PostNL chose the solution Descartes offered. To facilitate PostNL, Descartes implemented additional features, such as specific cycle maps, also showing bicycle bridges, not accessible by other vehicles, or even prohibited, but perfectly accessible to cyclists. Moreover, routes by bike and routes by car can be combined, real-time traffic information included. Using simulation software, schedules were adapted accordingly, including various speed profiles per type of vehicle.

Based on these results, the time spent per route can be estimated more specifically and very accurately. Aandewiel is very pleased with this solution. "By using the Descartes solution, route planning is executed automatically, based on the amount of routes and the required number of couriers. If necessary, a planning can be adapted manually, but in essence, it doesn't give us much to worry about. We now notice that we can schedule more stops within various time windows." Currently, PostNL has altogether some sixty electric cargo vehicles on the road in Amsterdam. Aandewiel: "The implementation in Amsterdam is only a beginning; we will continue to reflect on the most efficient ways to implement this process in cities. We will deploy the experience gained in Amsterdam to implement the process in various other cities, such as Utrecht and Breda."

Resultaten:



Automatic route planning

Descartes' solution combines specific cycle maps, traffic information, and simulation software. These features allow an accurate estimate of the time spent per route. It ensures a more realistic planning.



More stops can be planned for

In crowded cities, bikes are more flexible than cars and vans. In combination with automated route planning, PostNL's couriers can realize more stops within the same time frame.



Giant step towards sustainability

The administrative department operates more efficiently, reducing the risk of errors.



Content employees

Drivers enjoy working in the open air. Moreover, on bike they experience an increased positive interaction with the city's inhabitants.