## Tell us about any recent additions to your product range.

**PC:** We maintain close contact with our postal clients. They confirm the importance of tools to provide flexibility in managing last-mile operations while minimizing disruptions, so recent developments in our GeoRoute software have concentrated on dynamic planning.

With dynamic planning, sustainable solutions can easily be adjusted up to the final sorting. For example, the GeoRoute Operations Web application helps the depot manager react quickly to daily volume and product variations, while respecting operational constraints.

## How have your solutions been used successfully by posts?

**BS:** We implemented our dynamic-routing solution to help a postal operator plan the required resources, create and optimize routes automatically, and sequence routes. It can also insert late-arriving products and new pickup orders, and give estimated times of arrival. In the first year in use, last-mile costs reduced by 8% for evening deliveries and 16% for Saturday deliveries.

With the same client we are automating recurring processes while taking local knowledge into account. For instance, you might need to tell the software: "Two part-time, four-hour routes should be created within this boundary." Our algorithm optimizes a solution, considering these constraints and the generic rules.

# How do your solutions benefit the delivery process?

**PC:** Our dynamic-routing solution provides flexibility to adapt to daily variability of product types and quantities. It minimizes

disruption that affects sorting and vehicle loading. It also rapidly solves large-scale problems with several thousand addresses, and accounts for workload evaluations that meet the complex business and trade union requirements in the postal industry.

Our state-of-the-art algorithms are flexible and adjust to our postal clients' needs. This is not a pure-mathematics competition! Our algorithms must provide optimization and savings for our postal clients' real-life problems.

#### What are the key trends shaping the last-mile delivery sector?

**PC:** Key trends are rising parcel volumes; new products such as grocery deliveries; more evening and weekend deliveries; a broader range of subcontractors and vehicle types; and the move to greener delivery methods. Postal operators' responses include no longer offering second-class mail delivery every day, or combining mail and parcel deliveries and collections with new products. GIRO has adapted for these new ways of operating.

## What are the main challenges affecting the last-mile delivery sector?

**PC:** These trends also represent challenges, and customers expect faster, more flexible deliveries. Postal organizations must do all this and stay cost-efficient. Being obliged to offer mail delivery while demand for mail declines makes it even harder. Competition is increasing from large players such as online retailers, and from smaller ones focusing on profitable products.

**BS:** Postal operators can use their large infrastructure to their advantage. Maximizing efficiency and synergies in delivery networks is key. Postal operators

can be the most efficient providers to meet customers' rising demands.

**PC:** Human resources will also become more challenging. The new generation of workers expect more flexible conditions and change jobs more often. If know-how must constantly be replaced, postal organizations will need more complex and specialized software to compensate for it – and GIRO is here to help.

## What will be the key areas of focus for GIRO over the next few years?

**BS:** One key area is dynamic decision-making based on the daily volume for delivery. For instance, if there were too many parcels in a combined letter/parcel delivery route, they could be extracted and a new dedicated route created dynamically. The decision would be made automatically, aiming to reduce delivery costs.

## How do you believe the market in general will change?

**BS:** The market is trying to satisfy demand for more service at less – or no – cost to the customer. Various services are priced the same, but the operators' costs are different. It is important to influence customers' expectations, both for cost efficiency and to reduce the carbon footprint. A price incentive to choose delivery for pickup could influence the customer and improve cost efficiency, with no impact on perceived service quality.

**PC:** Eventually, the demand for next-day and home delivery may decline. As increasing numbers of people become more conscious of environmental impacts, they could be more willing to wait a few days for parcels and to make visiting a pickup station part of their routine.

